

Public Review Draft • October 2014



Park Avenue Bridge Replacement Project

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION



Prepared by:

RBF Consulting

A Michael Baker International Company

PUBLIC REVIEW DRAFT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Park Avenue Bridge Replacement Project

LEAD AGENCY:

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October 2014

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- C. Natural Environment Study
- D. Historic Property Survey Report
- E. Phase I Initial Site Assessment
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IS/MND AND APPENDICES ON CD



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1.0 INTRODUCTION

The proposed Park Avenue Bridge Replacement Project (herein referenced as the “project”) involves the replacement of the existing Park Avenue Bridge over Grand Canal with an improved bridge structure within the City of Newport Beach (City). Following a preliminary review of the proposed project, the City has determined that it is subject to the guidelines and regulations of the California Environmental Quality Act (CEQA). This Initial Study addresses the direct, indirect, and cumulative environmental effects of the project, as proposed.

1.1 STATUTORY AUTHORITY AND REQUIREMENTS

In accordance with Sections 15051 and 15367 of the California Code of Regulations (CCR), the City is identified as the Lead Agency for the proposed project. Under the CEQA (Public Resources Code Section 21000-21177) and pursuant to Section 15063 of the CCR, the City is required to undertake the preparation of an Initial Study to determine if the proposed project would have a significant environmental impact. If, as a result of the Initial Study, the Lead Agency finds that there is evidence that any aspect of the project may cause a significant environmental effect, the Lead Agency shall further find that an Environmental Impact Report (EIR) is warranted to analyze project-related and cumulative environmental impacts. Alternatively, if the Lead Agency finds that there is no evidence that the project, either as proposed or as modified to include the mitigation measures identified in the Initial Study, may cause a significant effect on the environment, the Lead Agency shall find that the proposed project would not have a significant effect on the environment and shall prepare a Negative Declaration. Such determination can be made only if “there is no substantial evidence in light of the whole record before the Lead Agency” that such impacts may occur (Section 21080(c), Public Resources Code).

The environmental documentation, which is ultimately selected by the City in accordance with CEQA, is intended as an informational document undertaken to provide an environmental basis for subsequent discretionary actions upon the project. The resulting documentation is not, however, a policy document and its approval and/or certification neither presupposes nor mandates any actions on the part of those agencies from whom permits and other discretionary approvals would be required.

The environmental documentation and supporting analysis is subject to a public review period. During this review, public agency comments on the document relative to environmental issues should be addressed to the City. Following review of any comments received, the City will consider these comments as a part of the project’s environmental review and include them with the Initial Study documentation for consideration by the City.

1.2 PURPOSE

Section 15063 of the CEQA Guidelines identifies specific disclosure requirements for inclusion in an Initial Study. Pursuant to those requirements, an Initial Study shall include:

- A description of the project, including the location of the project;
- Identification of the environmental setting;
- Identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries;
- Discussion of ways to mitigate significant effects identified, if any;



- Examination of whether the project is compatible with existing zoning, plans, and other applicable land use controls; and
- The name(s) of the person(s) who prepared or participated in the preparation of the Initial Study.

1.3 CONSULTATION

As soon as the Lead Agency (in this case, the City) has determined that an Initial Study would be required for the project, the Lead Agency is directed to consult informally with all Responsible Agencies and Trustee Agencies that are responsible for resources affected by the project, in order to obtain the recommendations of those agencies as to whether an EIR or Negative Declaration should be prepared for the project. Following receipt of any written comments from those agencies, the Lead Agency considers any recommendations of those agencies in the formulation of the preliminary findings. Following completion of this Initial Study, the Lead Agency initiates formal consultation with these and other governmental agencies as required under CEQA and its implementing guidelines.

1.4 INCORPORATION BY REFERENCE

The following documents were utilized during preparation of this Initial Study, and are incorporated into this document by reference. These documents are available for review at the City of Newport Beach Community Development Department located at 100 Civic Center Drive, Newport Beach, California, 92660.

- *City of Newport Beach General Plan* (adopted on July 25, 2006). The *City of Newport Beach General Plan (General Plan)* provides a general long-term approach for maintaining and improving the quality of life in the community and the resources of the community, whether man-made or natural. It serves as a tool and frame of reference for use by City officials and citizens. Other public agencies use the *General Plan* in determining the required capacity and location of public facilities and services needed to serve the City's population. The *General Plan* includes a total of 10 different elements that incorporate specific goals and policies to guide growth and preserve the qualities within the City that define the natural and built environment. These 10 elements consist of:
 - Land Use Element;
 - Harbor and Bay Element;
 - Housing Element;
 - Historical Resources Element;
 - Circulation Element;
 - Recreation Element;
 - Arts and Cultural Element;
 - Natural Resources Element;
 - Safety Element; and
 - Noise Element.

Since original adoption of the *General Plan* in 2006, the City has amended or updated elements to further refine the City's vision for its own long-term physical development. The elements contained in the *General Plan* are those required by the California Government Code Section 65302, in addition to four optional elements (Harbor and Bay, Historical Resources, Recreation, and Arts and Cultural) as permitted by California Government Code Section 65303.



- City of Newport Beach General Plan Final Environmental Impact Report (July 2006). The *City of Newport Beach General Plan Final Environmental Impact Report (General Plan EIR)* reviews the existing conditions of the City, analyzes potential environmental impacts from implementation of the *General Plan*, identifies policies from the proposed *General Plan* that serve to reduce and minimize impacts, and identifies additional mitigation measures, if necessary, to reduce potentially significant impacts of the *General Plan*. Based on analysis provided within the *General Plan EIR*, buildout of the *General Plan* was found to result in significant and unavoidable impacts related to aesthetics and visual quality, air quality, cultural resources, noise, population and housing, and transportation/traffic.
- City of Newport Beach Municipal Code and Zoning Ordinance. The *City of Newport Beach Municipal Code* provides regulations for governmental operations, development, infrastructure, public safety, and business operations within the City. Title 20, Planning and Zoning, of the *City of Newport Beach Municipal Code* represents the City's *Zoning Ordinance*. The *Zoning Ordinance* is intended to promote the growth of the City in an orderly manner and to promote and protect the public health, safety, peace, comfort and general welfare within the City. It is also intended to protect the character and social and economic vitality of all districts within the City, and to assure the orderly and beneficial development of such areas.



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2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

Regionally, the project site is located in the southern portion of the City of Newport Beach (City), within the County of Orange; refer to [Exhibit 1, *Regional Vicinity*](#). Locally, the project site is located along Park Avenue, between Balboa Island and Little Balboa Island, approximately 0.5-mile south of the East Coast Highway (State Route 1), and 0.4-mile north of the Balboa Peninsula area. The proposed bridge would extend in an east-west direction and span over the Grand Canal from Balboa Island to Little Balboa Island; refer to [Exhibit 2, *Site Vicinity*](#).

2.2 ENVIRONMENTAL SETTING

The proposed project would consist of the demolition of the existing bridge structure, and the construction of a roadway bridge structure along Park Avenue that would connect Balboa Island to Little Balboa Island. Park Avenue is a local two-lane roadway (one vehicle lane and sidewalk in each direction) trending in an east-west direction across Balboa Island and Little Balboa Island. The existing Park Avenue Bridge is approximately 100 feet long and 30 feet wide, and provides two 10-foot vehicle lanes with 5-foot raised sidewalks on each side.

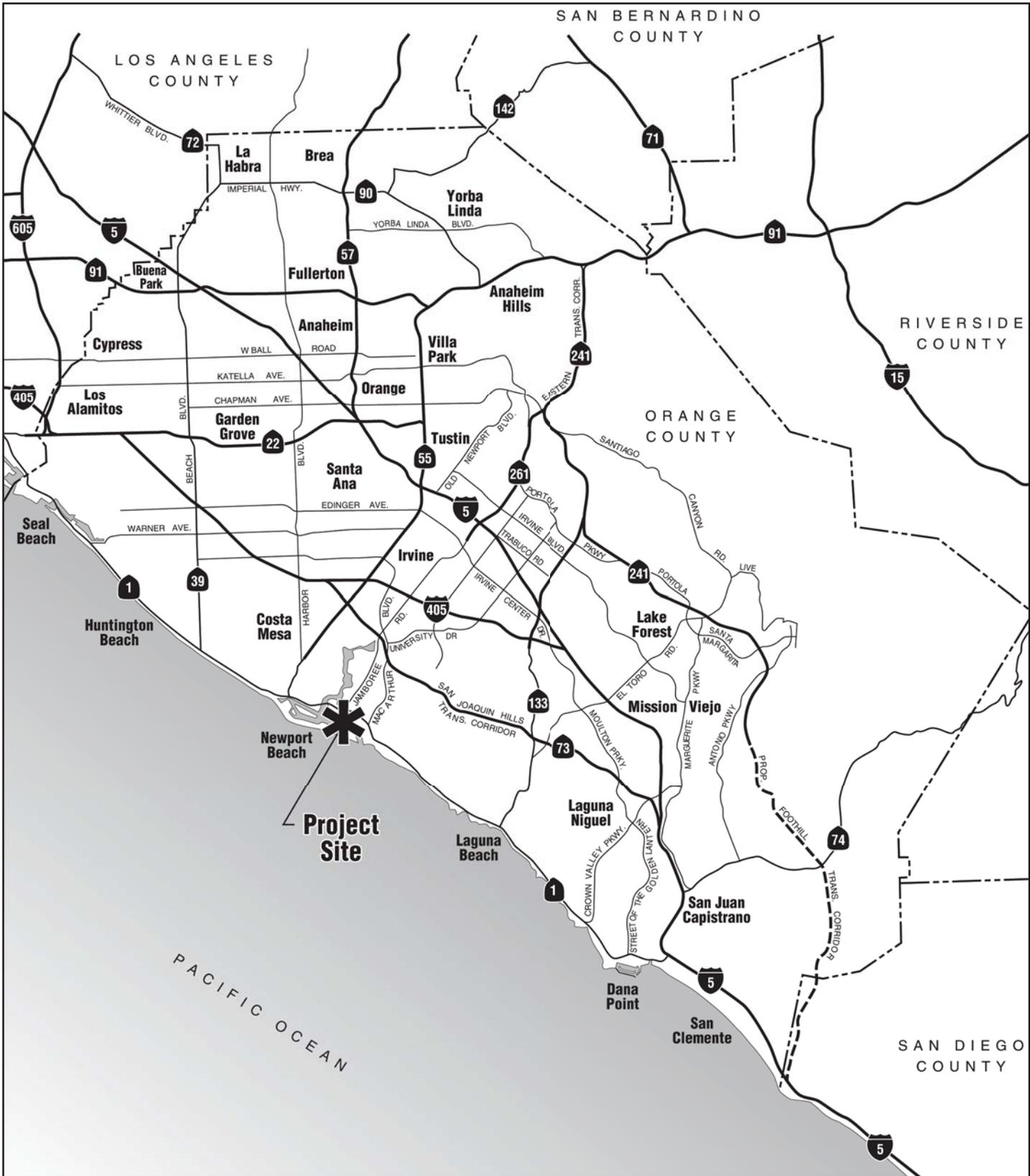
The bridge extends over the Grand Canal with a vertical curve profile; the vertical profile provides variable freeboard between the high water surface of the canal and allows for boat navigation beneath the bridge. Currently, the existing bridge structure consists of five 20-foot spans supported by precast concrete pile extensions at the piers and abutments. Each end of the bridge includes Americans with Disabilities Act (ADA)-accessible ramps extending from the adjacent at-grade sidewalks to the bridge-mounted sidewalks. An existing 12-inch thick seawall consisting of interlocking reinforced concrete sheet pile is located beneath the existing bridge and along the entire length of the Grand Canal. The bridge is illuminated by pole-mounted luminaires on both sides of each bridge approach. Wet and dry utility conduits/pipelines extend across the Grand Canal and are attached to the underside of the existing bridge.

Surrounding uses along include:

- The Grand Canal, and residential uses are located to the north and south;
- Park Avenue, and residential uses are located to the east and west;
- A fire station is located to the west at the corner of Park Avenue and Marine Avenue; and
- Commercial, retail, and office uses are located to the west/northwest along Park Avenue and Marine Avenue.

2.3 EXISTING GENERAL PLAN AND ZONING

As roadway facilities, Park Avenue and Balboa Avenue (location of the proposed temporary bridge structure, see [Section 2.5, *Project Characteristics*](#), below) do not have land use designations under the City's *General Plan and Zoning Code*. However, areas surrounding the project site along Park Avenue, Marine Avenue, and Balboa Avenue are designated "Two-Unit Residential," "Public Facilities," and "Mixed-Use" by the *General Plan and Zoning Code*.



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Regional Vicinity



Source: USGS Topo Map, Newport Beach, CA Quadrangle, daed 1965, photo revised 1981.

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Site Vicinity





2.4 PROJECT BACKGROUND

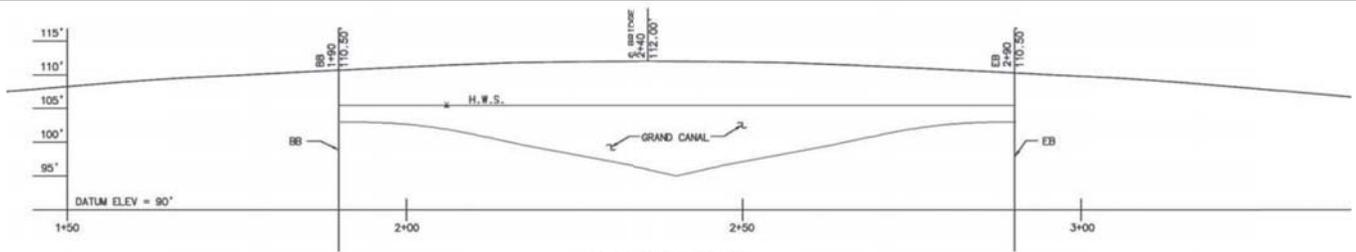
The City of Newport Beach has proposed the Park Avenue Bridge Replacement Project in order to meet current bridge design and seismic safety standards, and improve the safety for pedestrians, bicyclists, and vehicle users in the project area. The existing Park Avenue Bridge structure is over 80 years old and does not meet current bridge design and seismic safety standards. The City has identified structural and functional deficiencies with the bridge, such as severely deteriorated concrete in girders, pile caps, and piles. The proposed project would construct a new bridge meeting current engineering standards in order to improve safety for all users of the bridge in the area. Continued access would be provided from Balboa Island to Little Balboa Island.

For the reasons cited above, the City has determined that the proposed project is needed to upgrade the Park Avenue Bridge and improve the safety for pedestrians, bicyclists, and vehicle users in the Balboa Island/Little Balboa Island area.

2.5 PROJECT CHARACTERISTICS

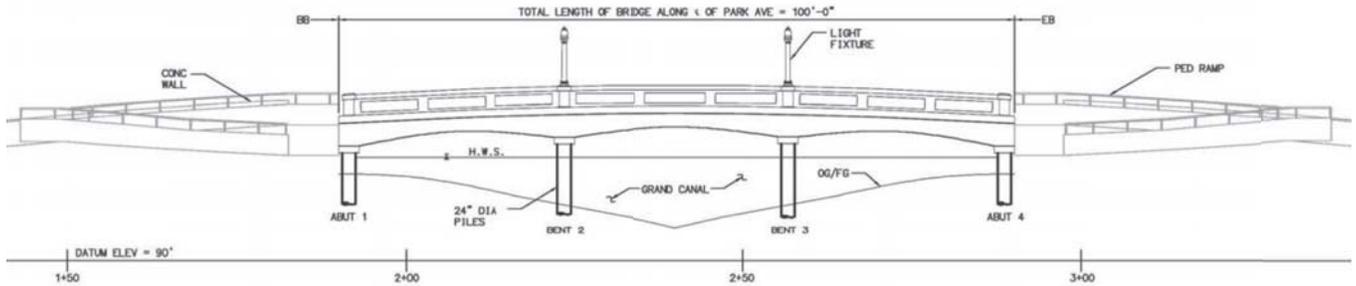
The proposed project would consist of the demolition of the existing Park Avenue Bridge and construction of an improved seismically-reinforced bridge over the Grand Canal. The primary components of the project are as follows:

- *Precast Post-Tensioned Bridge Structure.* The proposed project would implement a precast post-tensioned bridge structure at the project site. The new bridge would remain 100 feet long and would include 11-foot vehicle lanes and 6-foot raised sidewalks; refer to [Exhibit 3, Site Plan](#). The proposed bridge would be slightly wider than the existing bridge, with a width of approximately 36 feet (compared to the existing width of approximately 30 feet). The bridge would be supported by abutments at each bank of the canal and two bents comprised of 24-inch diameter piles within the canal. The number of spans associated with the bridge would be reduced from the current five to the proposed three. The improved bridge structure would be positioned within existing City right-of-way (ROW), and does not include nor require any ROW acquisition. All utilities attached to the existing bridge structure would be relocated during construction, and would be concealed and protected within utility openings in the new bridge. It should be noted that the City of Newport Beach proposes to rebuild the deteriorating seawalls under the proposed Park Avenue Bridge abutments as part of final design and construction. The existing seawalls would be replaced with a 60-foot length of secant pile wall with 24-inch diameter piles, and six inch concrete wall facing. All adjacent seawall areas would be protected-in-place.
- *Vertical Curve.* The profile of the existing bridge is on a vertical curve, which provides sufficient freeboard between the bridge and the high water surface of the canal. The vertical curve also accommodates boat navigation. The existing vertical curve provides a design speed of 24 miles per hour (MPH), which does not meet the American Association of State Highway and Transportation Officials (AASHTO) criteria of 25 MPH for this classification of roadway. In order to meet the AASHTO criteria, the bridge would need to be lowered by six inches at the crest of the vertical curve, which would not provide adequate freeboard between the bridge and the high water surface of the canal. The lowering of the bridge profile would also not provide adequate freeboard for boat navigation. Because the travel speeds on Balboa Island and Little Balboa Island are relatively low, it was decided that the proposed bridge structure would maintain the existing vertical curve profile and match the existing freeboard.



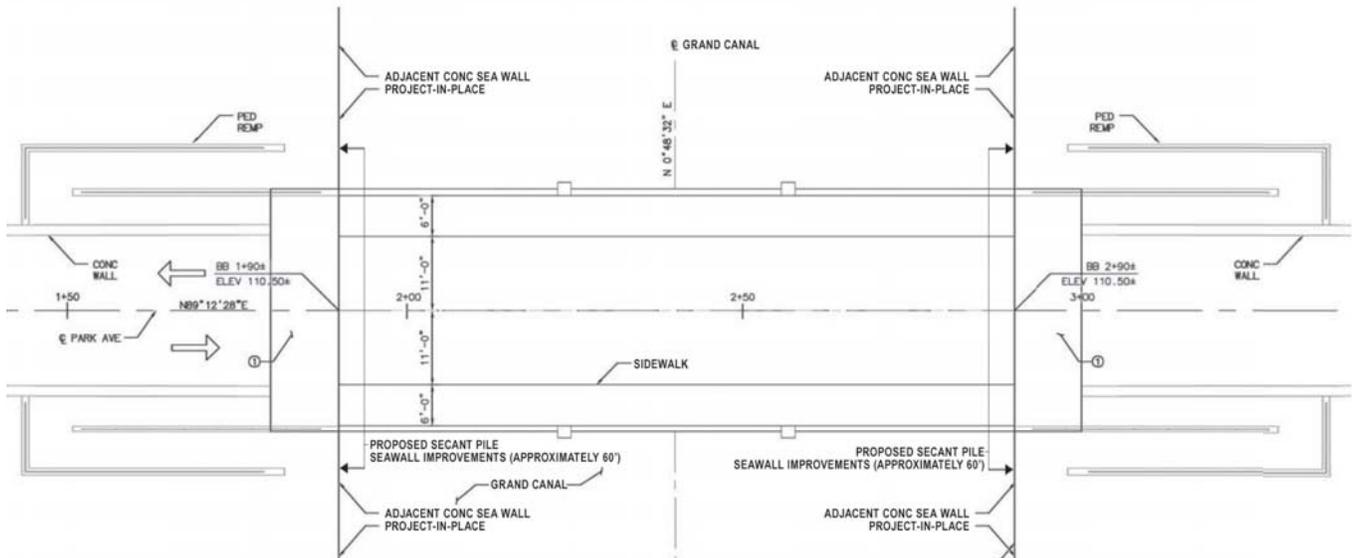
PROFILE GRADE

SCALE: 1" = 10'-0"



ELEVATION

SCALE: 1" = 10'-0"



PLAN

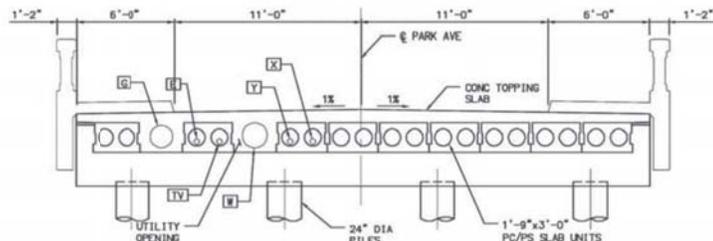
SCALE: 1" = 10'-0"

UTILITIES :

- 8" WATER
- 6" GAS
- 1/2" ELECTRICAL
- CABLE CONDUIT
- XX" XXXX
- XX" XXXX

LEGEND :

- ① STRUCTURE APPROACH TYPE EQ(10)



TYPICAL SECTION

SCALE: 1/4" = 1'-0"





- ADA Switchback Ramps. ADA-compliant switchback ramps are currently provided from the at-grade sidewalks to the bridge-mounted sidewalks to the east and west of the existing Park Avenue Bridge. Both existing switchback ramps on the east side of the Grand Canal have a two-foot landscape strip that would be eliminated to accommodate the proposed bridge structure. The switchback ramps on the west side of the existing bridge are currently five feet, six inches wide; the project would reduce the width of each switchback ramp by one foot, resulting in four feet, six inch-wide switchback ramps. Reducing the switchback ramps by two feet on all sides of the bridge to accommodate the wider traffic lanes and sidewalks. The new switchback ramps would be ADA-compliant.
- Bridge Architecture. The proposed bridge architecture would generally be consistent with the existing bridge to maintain the character of the project area. Entry monumentation would be given special attention in the design, providing a combination of landscaping and appropriate signage as an entrance to Little Balboa Island. Bridge lighting would be provided for both pedestrian safety and architectural character. The existing style of concrete light poles and lamps would replicate the existing luminaires and would line both sidewalks.

As noted above, all improvements would occur within existing City ROW and no ROW acquisition would be required. Temporary construction easements (TCEs) may be required at two residential driveway locations (i.e., the two dwelling units nearest the project site on Little Balboa Island, adjacent to Grand Canal). No construction activities would occur on these residential properties; however, the TCEs would be required since access to these two driveways would be temporarily restricted during a portion of the construction process. Access to the two nearest alleys parallel to the Grand Canal (one on Balboa Island and one on Little Balboa Island) may require a temporary detour during a portion of the construction process; however, these alleys would remain accessible at all times via alternative access points further north and south.

2.5.1 CONSTRUCTION/PHASING

Construction Methodology

Because the Park Avenue Bridge is the only connection between Balboa Island and Little Balboa Island, access over the Grand Canal must be maintained at all times. As such, the proposed project would consist of the installation of a temporary bridge over the Grand Canal at Balboa Avenue, which would allow for demolition of the entire Park Avenue Bridge at one time and reconstruction in a single phase; refer to Exhibit 4, Temporary Bridge Location. Balboa Avenue is a local two-lane roadway (one vehicle lane and sidewalk in each direction) trending in an east-west direction across Balboa Island and Little Balboa Island. There is no bridge crossing over the Grand Canal along Balboa Avenue, and the roadway currently terminates at each end of the canal. This location is immediately surrounded by single-family residential uses on all sides. Retail/commercial uses are situated to the west along Marine Avenue.

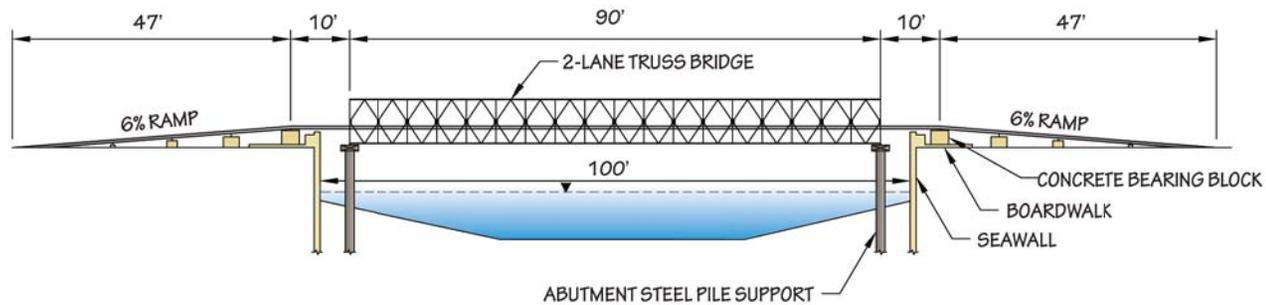
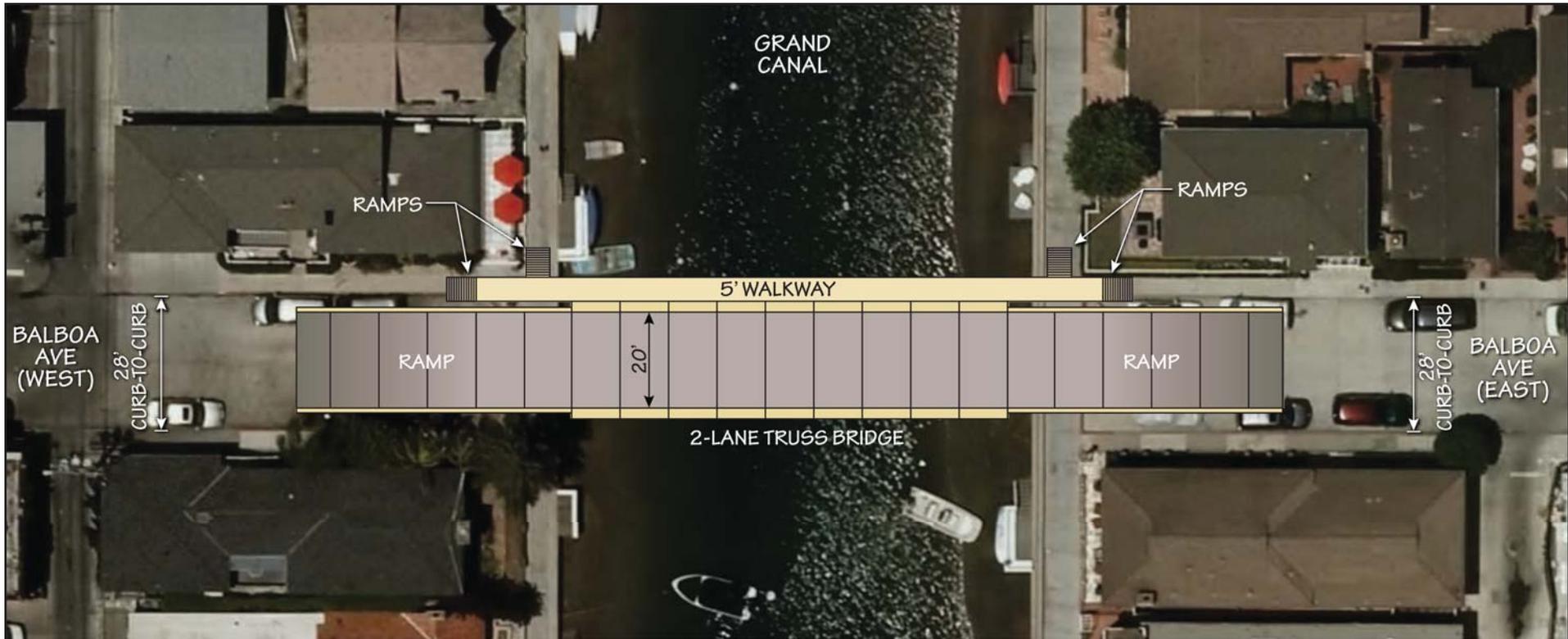
The temporary bridge would maintain access to Little Balboa Island with two 10-foot lanes of traffic. Bicycle and pedestrian access would also be provided via a five-foot wide walkway to be located to the north of the vehicle travel lanes; refer to Exhibit 5, Temporary Bridge Site Plan. Two pedestrian/ADA-compliant access ramps would be provided on each side of the Grand Canal to allow for access from at-grade elevations up to the five-foot walkway on the temporary bridge structure. Construction of the temporary bridge would not require removal/replacement of existing improvements on Balboa Avenue; however, temporary piles would be placed within the Grand Canal in order to lower the temporary bridge structure, shorten the ramp lengths on both sides of the canal, and eliminate any potential conflicts with surrounding residential driveways. Approximately eight temporary piles would be located



Source: Google Earth Pro Aerial, 2013.



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Temporary Bridge Location



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Temporary Bridge Site Plan

Exhibit 5



in the channel (four piles on each side of Grand Canal), and would be positioned approximately five feet away from the existing seawall; the piles would be spaced approximately three to four feet apart from one another. The proposed temporary piles would be vibrated into place in lieu of driving to minimize noise/vibration impacts to adjacent receptors. Bridge construction activities would be facilitated from the adjacent approaches on Park Avenue and Balboa Avenue for the replaced bridge and temporary bridge, respectively. Construction activities within the Grand Canal would be limited to geotechnical investigations, reconstruction of the sea wall within the project limits, and the removal and reconstruction of the bridge piles. Utilities would remain in full service throughout the construction period and the relocations would be coordinated as part of the bridge removal and reconstruction.

Construction of the temporary bridge at Balboa Avenue would occur within existing City ROW and no ROW acquisition would be required. Three TCEs may be required at residential driveway locations surrounding the temporary bridge site (i.e., two dwelling units nearest the temporary bridge site on Balboa Island, and one dwelling unit nearest the temporary bridge site on Little Balboa Island). No construction activities would occur on these residential properties; however, the TCEs would be required since access to these three driveways would be temporarily restricted during a portion of the construction process. Access to the two nearest alleys parallel to the Grand Canal (one on Balboa Island and one on Little Balboa Island) may require a temporary detour during a portion of the construction process; however, these alleys would remain accessible at all times via alternative access points further north and south. Construction of the proposed project would take approximately 10 months to complete.

2.6 PERMITS AND APPROVALS

The proposed project would require permits and approvals from the City of Newport Beach and other agencies prior to construction. These permits and approvals are described below, and may change as the project entitlement process proceeds.

City of Newport Beach:

- California Environmental Quality Act Clearance
- Grading/Building Permits

California Department of Transportation:

- National Environmental Policy Act Clearance (for Federal funding)

U.S. Army Corps of Engineers:

- Section 404 Nationwide Permit

Regional Water Quality Control Board

- Section 401 Water Quality Certification

California Coastal Commission:

- Coastal Development Permit



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3.0 INITIAL STUDY CHECKLIST

3.1 BACKGROUND

1.	Project Title: Park Avenue Bridge Replacement Project
2.	Lead Agency Name and Address: City of Newport Beach 100 Civic Center Drive Newport Beach, CA 92660
3.	Contact Person and Phone Number: Fong Tse, P.E. Civil Engineer, Principal 949.644.3321
4.	Project Location: The project site is located in the southern portion of the City of Newport Beach, within the County of Orange. Locally, the project site is located along Park Avenue, between Balboa Island and Little Balboa Island, approximately 0.5-mile south of the East Coast Highway (State Route 1), and 0.4-mile north of the Balboa Peninsula area. The proposed bridge would extend in an east-west direction and span over the Grand Canal from Balboa Island to Little Balboa Island.
5.	Project Sponsor’s Name and Address: City of Newport Beach 100 Civic Center Drive Newport Beach, CA 92660
6.	General Plan Designation: As roadway facilities, Park Avenue and Balboa Avenue do not have a designation under the <i>City of Newport Beach General Plan (General Plan)</i> . However, areas surrounding the Park Avenue and Balboa Avenue sites are designated “Two-Unit Residential,” “Public Facilities,” and “Mixed-Use” by the <i>General Plan</i> and <i>Zoning Code</i> .
7.	Zoning: As roadway facilities, Park Avenue and Balboa Avenue do not have a designation under the <i>City of Newport Beach Zoning Code</i> . However, areas surrounding the Park Avenue and Balboa Avenue sites are designated “Two-Unit Residential,” “Public Facilities,” and “Mixed-Use” by the <i>Zoning Code</i> .
8.	Description of the Project: The proposed project would consist of the demolition of the existing Park Avenue Bridge, and construction of an improved seismically-reinforced bridge over the Grand Canal. The primary components of the project are as follows: <ul style="list-style-type: none"> • <u>Precast Post-Tensioned Bridge Structure.</u> The proposed project would implement a precast post-tensioned bridge structure at the project site. The new bridge would remain 100 feet long and would include 11-foot vehicle lanes and 6-foot raised sidewalks. The proposed bridge would be slightly wider than the existing bridge, with a width of approximately 36 feet (compared to the existing width of approximately 30 feet). The bridge would be supported by abutments at each bank of the canal and two bents comprised of 24-inch diameter piles within the canal. The number



of spans associated with the bridge would be reduced from the current five to the proposed three. The improved bridge structure would be positioned within existing City right-of-way (ROW), and does not include nor require any ROW acquisition. All utilities attached to the existing bridge structure would be relocated during construction, and will be concealed and protected within utility openings in the new bridge. It should be noted that the City of Newport Beach proposes to rebuild the deteriorating seawalls under the proposed Park Avenue Bridge abutments as part of final design and construction. The existing seawalls would be replaced with a 60-foot secant pile wall with 24-inch diameter piles, and six inch concrete wall facing. All adjacent seawall areas would be protected-in-place.

- Vertical Curve. The profile of the existing bridge is on a vertical curve, which provides sufficient freeboard between the bridge and the high water surface of the canal. The vertical curve also accommodates boat navigation. The existing vertical curve provides a design speed of 24 miles per hour (MPH), which does not meet the American Association of State Highway and Transportation Officials (AASHTO) criteria of 25 MPH for this classification of roadway. In order to meet the AASHTO criteria, the bridge would need to be lowered by six inches at the crest of the vertical curve, which would not provide adequate freeboard between the bridge and the high water surface of the canal. The lowering of the bridge profile would also not provide adequate freeboard for boat navigation. Because the travel speeds on Balboa Island and Little Balboa Island are relatively low, it was decided that the proposed bridge structure would maintain the existing vertical curve profile and match the existing freeboard.
- ADA Switchback Ramps. ADA-compliant switchback ramps are currently provided from the at-grade sidewalks to the bridge-mounted sidewalks to the east and west of the existing Park Avenue Bridge. Both existing switchback ramps on the east side of the Grand Canal have a two-foot landscape strip that would be eliminated to accommodate the proposed bridge structure. The switchback ramps on the west side of the existing bridge are currently five feet, six inches wide; the project would reduce the width of each switchback ramp by one foot, resulting in four feet, six inch-wide switchback ramps. Reducing the switchback ramps by two feet on all sides of the bridge to accommodate the wider traffic lanes and sidewalks. The new switchback ramps would be ADA-compliant.
- Bridge Architecture. The proposed bridge architecture would generally be consistent with the existing bridge to maintain the character of the project area. Entry monumentation would be given special attention in the design, providing a combination of landscaping and appropriate signage as an entrance to Little Balboa Island. Bridge lighting would be provided for both pedestrian safety and architectural character. The existing style of concrete light poles and lamps would replicate the existing luminaires and would line both sidewalks.

Because the Park Avenue Bridge is the only connection between Balboa Island and Little Balboa Island, access over the Grand Canal must be maintained at all times. As such, the proposed project would consist of the installation of a temporary bridge over the Grand Canal at Balboa Avenue, which would allow for demolition of the entire Park Avenue Bridge at one time and reconstruction in a single phase; refer to Exhibit 4, Temporary Bridge Location. Balboa Avenue is a local two-lane roadway (one vehicle lane and sidewalk in each direction) trending in an east-west direction across Balboa Island and Little Balboa Island. There is no bridge crossing over the Grand Canal along Balboa Avenue, and the roadway currently terminates at each end of the canal. This location is immediately surrounded by single-family residential uses on all sides. Retail/commercial uses are situated to the west along Marine Avenue. Additional details regarding the project are provided in Section 2.5, Project Characteristics.



9. Surrounding Land Uses and Setting:

Surrounding uses along Park Avenue include:

- The Grand Canal, and residential uses are located to the north and south;
- Park Avenue, and residential uses are located to the east and west;
- A fire station is located to the west at the corner of Park Avenue and Marine Avenue; and
- Commercial, retail, and office uses are located to the west/northwest along Park Avenue and Marine Avenue.

10. Other public agencies whose approval is required (e.g., permits, financing approval or participation agreement).

Refer to [Section 2.6, *Permits and Approvals*](#), for a description of the range of local, regional, and State approvals anticipated to be required for the project. Additional approvals may be required as the project entitlement process moves forward.

3.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” or “Less Than Significant Impact with Mitigation Incorporated,” as indicated by the checklist on the following pages.

✓	Aesthetics		Land Use and Planning
	Agriculture and Forestry Resources		Mineral Resources
✓	Air Quality	✓	Noise
✓	Biological Resources		Population and Housing
✓	Cultural Resources		Public Services
✓	Geology and Soils		Recreation
	Greenhouse Gas Emissions		Transportation/Traffic
✓	Hazards & Hazardous Materials		Utilities & Service Systems
	Hydrology & Water Quality	✓	Mandatory Findings of Significance

3.3 EVALUATION OF ENVIRONMENTAL IMPACTS

This section analyzes the potential environmental impacts associated with the proposed project. The issue areas evaluated in this Initial Study include:

- | | |
|--|---|
| <ul style="list-style-type: none"> - Aesthetics - Agriculture and Forestry Resources - Air Quality - Biological Resources - Cultural Resources - Geology and Soils - Greenhouse Gas Emissions - Hazards and Hazardous Materials - Hydrology and Water Quality | <ul style="list-style-type: none"> - Land Use and Planning - Mineral Resources - Noise - Population and Housing - Public Services - Recreation - Transportation/Traffic - Utilities and Service Systems |
|--|---|



The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines* and used by the City of Newport Beach in its environmental review process. For the preliminary environmental assessment undertaken as part of this Initial Study's preparation, a determination that there is a potential for significant effects indicates the need to more fully analyze the development's impacts and to identify mitigation.

For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the development. To each question, there are four possible responses:

- **No Impact.** The development will not have any measurable environmental impact on the environment.
- **Less Than Significant Impact.** The development will have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.
- **Less Than Significant Impact With Mitigation Incorporated.** The development will have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation measures or changes to the development's physical or operational characteristics can reduce these impacts to levels that are less than significant.
- **Potentially Significant Impact.** The development will have impacts which are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

Where potential impacts are anticipated to be significant, mitigation measures will be required, so that impacts may be avoided or reduced to insignificant levels.



4.0 ENVIRONMENTAL ANALYSIS

The following is a discussion of potential project impacts as identified in the Initial Study/Environmental Checklist. Explanations are provided for each item.

4.1 AESTHETICS

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?			✓	
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				✓
c. Substantially degrade the existing visual character or quality of the site and its surroundings?		✓		
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?		✓		

a) *Have a substantial adverse effect on a scenic vista?*

Less Than Significant Impact. The *City of Newport Beach General Plan (General Plan)* identifies the conservation of sensitive lands and natural resources, and enhancement of the City’s visual resources as important goals. The *General Plan* designates visual resources, scenic corridors, public view points, ocean views, cliffs, and hillsides as important scenic resources with the City of Newport Beach. The Park Avenue and Balboa Avenue bridge sites are located within a developed residential and commercial area on Balboa/Little Balboa Island. The Park Avenue Bridge site is designated as a “public view point” in the *General Plan*, as views from the project site to visual resources such as the Newport Bay and Grand Canal are afforded.

The proposed project would replace the existing Park Avenue Bridge with a new bridge structure and implement a temporary bridge at Balboa Avenue. A Visual Impact Assessment (VIA) was prepared for the proposed project, dated May 13, 2014. The VIA analyzed the potential for the project’s visual impacts to surrounding sensitive viewers and visual resources in the project area; refer to Appendix A, Visual Impact Assessment. According to the VIA, the project would have moderate short-term visual impacts due to temporary construction activities (i.e., construction equipment, signage, staging areas, and construction equipment in the Grand Canal), and low long-term visual impacts, as the proposed bridge structure would be similar in color, texture, height, mass, and scale as the existing Park Avenue Bridge, and would not obstruct views to the Grand Canal and/or Newport Bay. As such, project implementation would not substantially alter the appearance of the landscape in the project area, and would not obstruct or visually impact any scenic vistas or resources. Therefore, a less than significant impact would occur in this regard.

Mitigation Measures: No mitigation is required.

b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*



No Impact. State Route 1 (SR-1) is the nearest Officially State Designated State Scenic Highway, located approximately 0.5-mile to the north of the project site.¹ Views to the project area from SR-1, however, are not afforded due to topographic conditions and intervening structures. As such, the proposed project would not affect scenic resources along SR-1. Thus, no impact would occur.

Mitigation Measures: No mitigation is required.

c) ***Substantially degrade the existing visual character or quality of the site and its surroundings?***

Less Than Significant Impact With Mitigation Incorporated.

Short-Term Impacts

Because the Park Avenue Bridge is the only connection between Balboa Island and Little Balboa Island, access over the Grand Canal must be maintained at all times. Thus, the proposed project would include the installation of a temporary bridge at Balboa Avenue, which would allow for the demolition of the entire Park Avenue Bridge at one time and reconstruction of the new bridge in one phase. Construction of the proposed project would take approximately 10 months to complete.

Improvements associated with the proposed project would expose sensitive viewers to construction activities (approximately 10 months) at the project site and along Balboa Avenue at the Grand Canal. Balboa Avenue is a local two-lane roadway (one vehicle lane and sidewalk in each direction) trending in an east-west direction across Balboa Island and Little Balboa Island. Currently, there is no bridge crossing over Grand Canal along Balboa Avenue, and the roadway currently terminates at each end of the canal. This location is immediately surrounded by residential uses on all sides. Retail/commercial uses are situated to the west along Marine Avenue. Construction of the temporary bridge at Balboa Avenue would occur within existing City ROW and no ROW acquisition would be required.

The temporary bridge would maintain access to Little Balboa Island via two 10-foot lanes of traffic. Bicycle and pedestrian access will also be provided via a five-foot wide walkway to be located to the north of the travel lanes. Two pedestrian/ADA-compliant access ramps would be provided on each side of the Grand Canal to allow for access from at-grade elevations up to the five-foot walkway on the temporary bridge structure. Construction of the temporary bridge requires no removal/replacement of existing improvements on Balboa Avenue; however, temporary piles would be placed within the Grand Canal in order to lower the temporary bridge structure, shorten the ramp lengths on both sides of the canal, and eliminate any potential conflicts with surrounding residential driveways. Approximately eight temporary piles would be located within the channel (four piles on each side of Grand Canal).

Construction of the project would result in construction debris, equipment, and truck traffic to nearby sensitive viewers (in the vicinity of Park Avenue Bridge and Balboa Avenue). Installation and removal of the temporary bridge structure and permanent bridge at Park Avenue would be visible from motorists, bicyclists, pedestrians, and residents located in the project vicinity. A construction staging area temporarily located at a nearby vacant lot within the project area, the location of which would be determined during the final design process. To minimize impacts related at the Park Avenue site, Balboa Avenue site, and temporary staging area, implementation of Mitigation Measure AES-1 would require temporary construction fencing to minimize public views, and would also require that any equipment/materials storage and vehicle parking is sited such that visibility from adjacent receptors is reduced to the greatest extent feasible. Trucks hauling materials to the construction site would be required to comply with the City's Municipal Code to minimize impacts to sensitive uses, and therefore, would not result in significant visual impacts. These impacts are short-term and would cease upon

¹ California Department of Transportation website, http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm, accessed June 16, 2014.



project completion of construction activities. As these impacts would be temporary, and would cease upon completion, the potential impacts to the visual character and quality in the surrounding area are considered to be less than significant.

Long-Term Impacts

The proposed project would result in a new bridge structure along Park Avenue, connecting Balboa Island to Little Balboa Island. Public views of the new bridge structure (including slightly wider travel lanes and sidewalks, and a reduction in the number of spans in the Grand Canal from five to the proposed three), entry monumentation (including landscaping and signage), and bridge lighting fixtures would be afforded. Proposed project changes would result in a beneficial increase in visual character/quality, as the new, wider bridge structure would increase the pedestrian scale environment (compared to the more narrow, existing structure), and improvements over the existing Park Avenue Bridge (i.e., severely deteriorated concrete in girders, pile caps, and piles) would increase visual intactness for nearby viewers. Stationary viewers (i.e., residents in the project vicinity) would have long-term views to the new bridge structure; however, the new bridge structure would be constructed of similar height as the existing Park Avenue Bridge, and existing views of the Newport Harbor and Grand Canal would remain similar to existing conditions.

The proposed streetscape and monument signage is anticipated to result in an overall increase in the quality of the landscape in the project area. Existing views of Newport Bay and the Grand Canal would remain upon implementation of the proposed project. Further, based on public input received from community residents, the project proposes a widened bridge with a similar profile, architecture, and lighting elements compared to existing conditions. Thus, long-term operational visual character/quality impacts would be less than significant.

Mitigation Measures:

AES-1 Prior to final plan approval, the City of Newport Beach Public Works Department shall ensure that project specifications require that all construction and construction staging areas are sited and/or screened with temporary fencing in order to minimize impacts to public views to the maximum extent feasible. The fencing shall be comprised of opaque material to shield views from surrounding sensitive viewers. In addition, equipment/materials storage and any vehicle parking shall be sited such that their visibility from adjacent receptors is reduced to the greatest extent feasible.

d) ***Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?***

Less Than Significant Impact with Mitigation Incorporated.

Short-Term Impacts

Operation of the temporary bridge along Balboa Avenue would require the use of nighttime lighting for security and traffic safety during the nighttime hours. This lighting could expose surrounding sensitive viewers to an increase in light and glare in the area. Implementation of Mitigation Measure AES-2 would minimize impacts in this regard by requiring use of the minimum amount of lighting required for safety, and through shielding and directing light away from surrounding uses. This measure would require the minimum amount of light required to allow for the safe travel of vehicles, pedestrians, and bicyclists across the bridge. Compliance with Mitigation Measure AES-2 would result in a less than significant impact.



Long-Term Impacts

The project area currently experiences lighting typical of urban/suburban areas. The primary source of light and glare in the area is from street lights, pedestrian lighting, and motor vehicle headlights. The proposed project includes bridge lighting for pedestrian safety and architectural character similar to the existing lighting fixtures in the project area. The concrete light poles and lamps would line both sidewalks, and would be consistent with the City's design guidelines and Municipal Code. It is not anticipated that the project would introduce new lighting that would substantially alter nighttime views in the project area. Thus, upon required Municipal Code and design guidelines compliance, a less than impact would occur in this regard.

Mitigation Measures:

AES-2 For any nighttime lighting required for the project, the City of Newport Beach Public Works Department shall ensure that the contract documents require the construction contractor and/or bridge contractor to use the minimum amount and intensity of lighting required for safety purposes. The lighting shall be shielded and directed towards the specific area of construction, and away from surrounding sensitive uses to the extent practicable.



4.2 AGRICULTURE AND FORESTRY RESOURCES

<p><i>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</i></p>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✓
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				✓
d. Result in the loss of forest land or conversion of forest land to non-forest use?				✓
e. Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				✓

- a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

No Impact. The proposed project site is a transportation use and is surrounded by developed urbanized uses. No farmland exists within the site vicinity. In addition, based on the *Orange County Important Farmland 2010 Map* prepared by the California Department of Conservation, the proposed project site does not occur upon any area designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.¹ Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

- b) **Conflict with existing zoning for agricultural use, or a Williamson Act contract?**

No Impact. As roadway facilities, Park Avenue and Balboa Avenue do not have land use designations under the *General Plan* or *Zoning Code*. However, areas surrounding the Park Avenue and Balboa

¹ California Department of Conservation Farmland Mapping and Monitoring Program, *Orange County Important Farmland 2010 Map*, published August 2011.



Avenue sites are designated “Two-Unit Residential,” “Public Facilities,” and “Mixed-Use” by the *General Plan* and *Zoning Code*. No existing agricultural uses existing within the site vicinity. Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

- c) ***Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?***

No Impact. Refer to Response 4.2(b), above. No zoning for forest land or timberland exists within the project area, and no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

- d) ***Result in the loss of forest land or conversion of forest land to non-forest use?***

No Impact. Refer to Response 4.2(c), above.

Mitigation Measures: No mitigation is required.

- e) ***Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?***

No Impact. As stated above in Responses 4.2(a) through 4.2(c), the project site is completely developed and is void of agricultural or forest resources. Thus, there is no potential for the conversion of these resources and no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.



4.3 AIR QUALITY

<i>Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?			✓	
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		✓		
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?		✓		
d. Expose sensitive receptors to substantial pollutant concentrations?		✓		
e. Create objectionable odors affecting a substantial number of people?			✓	

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The Project is located within the South Coast Air Basin (Basin), which is governed by the South Coast Air Quality Management District (SCAQMD). Consistency with the SCAQMD 2012 Air Quality Management (2012 AQMP) means that a project is consistent with the goals, objectives, and assumptions in the respective plan to achieve the Federal and State air quality standards. According to the SCAQMD CEQA Air Quality Handbook, in order to determine consistency with the 2012 AQMP, two main criteria must be addressed:

Criterion 1:

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for a project include forecasts of project emissions in relation to contributing to air quality violations and delay of attainment.

a) Would the project result in an increase in the frequency or severity of existing air quality violations?

Since the consistency criteria identified under the first criterion pertain to pollutant concentrations, rather than to total regional emissions, an analysis of the project's pollutant emissions relative to localized pollutant concentrations is used as the basis for evaluating project consistency. As discussed in Response 4.3(d), below, localized concentrations of CO, NO_x, PM₁₀, and PM_{2.5} would be less than significant. Therefore, the proposed project would not result in an increase in the frequency or severity of existing air quality violations. Because ROG's are not a criteria pollutant, there is no ambient standard or localized threshold for ROG's. Due to the role ROG plays in ozone formation, it is classified as a precursor pollutant and only a regional emissions threshold has been established.



b) *Would the project cause or contribute to new air quality violations?*

As discussed in Response 4.3(b), the proposed project would result in emissions that would be below the SCAQMD thresholds. Therefore, the proposed project would not have the potential to cause or affect a violation of the ambient air quality standards.

c) *Would the project delay timely attainment of air quality standards or the interim emissions reductions specified in the AQMP?*

The proposed project would result in less than significant impacts with regard to localized concentrations during project construction and operations. As such, the proposed project would not delay the timely attainment of air quality standards or AQMP emissions reductions.

Criterion 2:

With respect to the second criterion for determining consistency with SCAQMD and Southern California Association of Governments (SCAG) air quality policies, it is important to recognize that air quality planning within the South Coast Air Basin (Basin) focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether or not the proposed project exceeds the assumptions utilized in preparing the forecasts presented in the 2012 AQMP. Determining whether or not a project exceeds the assumptions reflected in the 2012 AQMP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

a) *Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the AQMP?*

In the case of the 2012 AQMP, three sources of data form the basis for the projections of air pollutant emissions: the *City of Newport Beach General Plan*, SCAG's *Growth Management Chapter of the Regional Comprehensive Plan (RCP)*, and SCAG's *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)*. The RTP/SCS also provides socioeconomic forecast projections of regional population growth. As the project site is comprised of a bridge structure and Park Avenue, there is no land use designation for the site. Park Avenue is a local roadway located on Balboa/Little Balboa Island. The project proposes to demolish the existing Park Avenue Bridge, and construct a new bridge structure at the same location. Thus, the proposed project would not induce any population growth, and would be consistent with the types, intensity, and patterns of land use envisioned for the site vicinity in the RCP/SCS. The population, housing, and employment forecasts, which are adopted by SCAG's Regional Council are based on the local plans and policies applicable to the City; these are used by SCAG in all phases of implementation and review. Additionally, as the SCAQMD has incorporated these same projections into the 2012 AQMP, it can be concluded that the proposed project would be consistent with the projections.

b) *Would the project implement all feasible air quality mitigation measures?*

The proposed project would not generate a significant amount of air quality emissions nor exceed SCAQMD thresholds. During construction activities, the project would also be required to comply with standard SCAQMD regulations, such as Rule 403 (Dust Control). As such, the proposed project meets this AQMP consistency criterion.



c) *Would the project be consistent with the land use planning strategies set forth in the AQMP?*

The proposed project would result in less than significant air quality impacts. Compliance with emission reduction measures identified by the SCAQMD would be required as identified in Response 4.3(b) and 4.3(c). In addition, the proposed project is located within a developed portion of the City, and would relieve traffic congestion in the area and allow for more efficient mobility. As such, the proposed project meets this AQMP consistency criterion.

In conclusion, the determination of 2012 AQMP consistency is primarily concerned with the long-term influence of a project on air quality in the Basin. The proposed project would not result in a long-term impact on the region's ability to meet State and Federal air quality standards. Also, the proposed project would be consistent with the goals and policies of the 2012 AQMP for control of fugitive dust. As discussed above, the proposed project's long-term influence would also be consistent with the goals and policies of the AQMP and is, therefore, considered consistent with the SCAQMD's 2012 AQMP.

Mitigation Measures: No mitigation is required.

b) *Violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

Less Than Significant Impact with Mitigation.

SHORT-TERM (CONSTRUCTION) EMISSIONS

Construction Emissions

As discussed in Section 2.0, Project Description, the proposed project would take approximately 10 months to complete. Construction of the project would include a temporary bridge connection over the Grand Canal along Balboa Avenue while the existing Park Avenue Bridge is being demolished and constructed. The project's construction air emissions for the have been modeled using the California Emissions Estimator Model (CalEEMod) Version 2013.2.2. Construction of the proposed project is anticipated to commence in early 2016 and be completed by late 2016. Construction activities would require the import and export of approximately 27 cubic yards of soil, and hauling of 600 tons of demolished material from demolition of the existing Park Avenue Bridge.

Table 4.3-1, Construction Air Emissions, depicts the construction emissions associated with the project. Emitted pollutants would include ROG, CO, NO_x, PM₁₀, and PM_{2.5}. ROG emissions would be the greatest during construction of the new bridge structure. The largest amount of ROG, CO and NO_x emissions would occur during construction of the new bridge structure. PM₁₀ and PM_{2.5} emissions would occur from fugitive dust (due to earthwork and excavation) and from construction equipment exhaust. Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, emissions produced on-site as the equipment is used, and emissions from trucks transporting materials to and from the site.

As depicted in Table 4.3-1, construction-related emissions would not exceed the established SCAQMD thresholds for criteria pollutants. Therefore, short-term construction impacts would be less than significant. During construction activities, the project would also be required to comply with standard SCAQMD regulations, such as Rule 403 (Dust Control); refer to Mitigation Measure AQ-1. No mitigation measures are required.



Naturally Occurring Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, Federal, and international agencies and was identified as a toxic air contaminant by the California Air Resources Board in 1986.

**Table 4.3-1
Construction Air Emissions**

Construction Emissions Source	Pollutant (pounds/day) ^{1,2}					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
2016						
Unmitigated Emissions	4.00	40.66	27.17	0.04	3.14	2.26
Mitigated Emissions	4.00	40.66	27.17	0.04	2.71	2.19
SCAQMD Thresholds	75	100	550	150	150	55
<i>Is Threshold Exceeded?</i>	No	No	No	No	No	No
2017						
Unmitigated Emissions	1.10	9.91	8.10	0.01	0.80	0.61
Mitigated Emissions	1.10	9.91	8.10	0.01	0.76	0.60
SCAQMD Thresholds	75	100	550	150	150	55
<i>Is Threshold Exceeded?</i>	No	No	No	No	No	No
ROG = reactive organic gases; NO _x = nitrogen oxides; CO = carbon monoxide; SO ₂ = sulfur dioxide; PM ₁₀ = particulate matter up to 10 microns; PM _{2.5} = particulate matter up to 2.5 microns Notes: 1. Emissions were calculated using the California Emissions Estimator Model, as recommended by the SCAQMD. 2. Refer to Appendix B, Air Quality/Greenhouse Gas Data , for assumptions used in this analysis.						

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. All of these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed. According to the Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report* (August 2000), serpentinite and ultramafic rocks are not known to occur within the project area. Thus, there would be no impact in this regard.

LONG-TERM (OPERATIONAL) EMISSIONS

Long-term air quality impacts would consist of mobile source emissions generated from project-related traffic and from stationary source emissions. Long-term air quality impacts typically consist of mobile source emissions generated from project-related traffic and from stationary source emissions generated directly from natural gas. However, the project involves the demolition of the existing Park Avenue Bridge, and construction of a new bridge structure at the same location. The project would not



generate any new traffic trips, as the project is intended to relieve traffic congestion, increase mobility, and accommodate existing traffic conditions in the area. Additionally, the proposed bridge would not generate any stationary source emissions. Therefore, the project would not result in any new operational emissions and impacts in this regard would be less than significant.

Mitigation Measures:

AQ-1 Prior to issuance of any Grading Permit, the City shall confirm that the Grading Plan, Building Plans, and specifications stipulate that, in compliance with SCAQMD Rule 403, excessive fugitive dust emissions shall be controlled by regular watering or other dust prevention measures, as specified in the SCAQMD's Rules and Regulations. In addition, SCAQMD Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. Implementation of the following measures (among others required by Rules 402 and 403) would reduce short-term fugitive dust impacts on nearby sensitive receptors:

- All active portions of the construction site shall be watered every three hours during daily construction activities and when dust is observed migrating from the project site to prevent excessive amounts of dust;
- Pave or apply water every three hours during daily construction activities or apply non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas. More frequent watering shall occur if dust is observed migrating from the site during site disturbance;
- Any on-site stockpiles of debris, dirt, or other dusty material shall be enclosed, covered, or watered twice daily, or non-toxic soil binders shall be applied;
- All grading and excavation operations shall be suspended when wind speeds exceed 25 miles per hour;
- Disturbed areas shall be replaced with ground cover or paved immediately after construction is completed in the affected area;
- Visible dust beyond the property line which emanates from the project shall be prevented to the maximum extent feasible;
- All material transported off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust prior to departing the job site; and
- Reroute construction trucks away from congested streets or sensitive receptor areas.

c) ***Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?***

Less Than Significant Impact with Mitigation.

CUMULATIVE CONSTRUCTION IMPACTS

With respect to the proposed project's construction related air quality emissions and cumulative Basin-wide conditions, the SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the 2012 AQMP pursuant to Federal Clean Air Act mandates. As stated above in Response 4.3(b), the project would result in construction emissions that would not exceed SCAQMD thresholds and would not contribute to a cumulative net increase in air quality levels. Other cumulative projects in the Basin would be required to undergo environmental review, and comply with SCAQMD Rule 403



requirements, adopted 2012 AQMP emissions control measures, and implement all feasible mitigation measures, which would reduce cumulative project contribution of emissions. Therefore, as the project would not result in project-level air quality impacts with implementation of Mitigation Measure AQ-1, the project would not contribute to cumulative air quality levels in the Basin. Thus, a less than significant impact would occur in this regard.

CUMULATIVE LONG-TERM IMPACTS

As discussed previously, the proposed project would not result in long-term air quality impacts. Additionally, adherence to SCAQMD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis. Emission reduction technology, strategies, and plans are constantly being developed. As a result, the proposed project would not contribute a cumulatively considerable net increase of any nonattainment criteria pollutant. Therefore, cumulative operational impacts associated with implementation of the proposed project would be less than significant.

Mitigation Measures: Refer to Mitigation Measure AQ-1.

d) *Expose sensitive receptors to substantial pollutant concentrations?*

Less Than Significant Impact with Mitigation. Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. The California Air Resources Board (CARB) has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

Sensitive receptors closest to the project site include residents adjoining the site to the northeast, southeast, southwest, and northwest. In order to identify impacts to sensitive receptors, the SCAQMD recommends addressing localized significance thresholds for construction and operations impacts (area sources only). A carbon monoxide hot-spot analysis is recommended for the analysis of localized mobile source impacts. However, a carbon monoxide hot-spot analysis was not prepared as the project would not increase the volume of traffic.

Localized Significance Thresholds (LST)

Localized Significance Thresholds (LSTs) were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with project-specific level proposed projects. The SCAQMD provides the LST lookup tables for one, two, and five acre projects emitting CO, NO_x, PM_{2.5}, or PM₁₀. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways. The SCAQMD recommends that any project over five acres should perform air quality dispersion modeling to assess impacts to nearby sensitive receptors. The project is located within Sensitive Receptor Area (SRA) 18, North Coastal Orange County.

The project would disturb no more than one acre of land per day; therefore, the LST thresholds for the smallest acreage (one acre) was utilized for the construction LST analysis. It is noted that an operational LST analysis was not prepared, as the project would not result in operational emissions. The closest sensitive receptors are residential uses that adjoin the project site to the northeast,



southeast, southwest, and northwest. These sensitive land uses may be potentially affected by air pollutant emissions generated during on-site construction activities. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. As the nearest sensitive uses adjoin the project site, the LST value for 25 meters was used.

Table 4.3-2, Localized Significance of Emissions, shows the construction-related emissions for NO_x, CO, PM₁₀, and PM_{2.5} compared to the LSTs for SRA 18, North Coastal Orange County. As shown in *Table 4.3-2*, construction and operational emissions would not exceed the LSTs for SRA 18. Therefore, localized significance impacts would be less than significant.

**Table 4.3-2
Localized Significance of Emissions**

Source	Pollutant (pounds/day) ^{1,2}			
	NO _x	CO	PM ₁₀	PM _{2.5}
Construction				
2016				
Total Mitigated Emissions ³	40.66	27.17	2.71	2.19
Localized Significance Threshold ⁴	92	647	4	3
Thresholds Exceeded?	No	No	No	No
2017				
Total Mitigated Emissions ³	9.91	8.10	0.76	0.60
Localized Significance Threshold ⁴	92	647	4	3
Thresholds Exceeded?	No	No	No	No
Note:				
1. Emissions were calculated using the California Emissions Estimator Model, as recommended by the SCAQMD.				
2. Refer to <i>Appendix B, Air Quality/Greenhouse Gas Data</i> , for assumptions used in this analysis.				
3. Construction emissions include the worst-case on-site emissions.				
4. The Localized Significance Threshold was determined using Appendix C of the SCAQMD <i>Final Localized Significant Threshold Methodology</i> guidance document for pollutants NO _x , CO, PM ₁₀ , and PM _{2.5} . The Localized Significance Threshold was based on the anticipated daily acreage disturbance for construction, the total acreage for operational, the distance to sensitive receptors, and the source receptor area (SRA 18).				

Mitigation Measures: Refer to Mitigation Measure AQ-1.

e) **Create objectionable odors affecting a substantial number of people?**

Less Than Significant Impact. According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project does not include any uses identified by the SCAQMD as being associated with odors.

Construction activities associated with the project may generate detectable odors from heavy-duty equipment exhaust. Construction-related odors would be short-term in nature and cease upon project completion. Any impacts to existing adjacent land uses would be short-term and are less than significant.

Mitigation Measures: No mitigation is required.



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4.4 BIOLOGICAL RESOURCES

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		✓		
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		✓		
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				✓
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			✓	
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			✓	
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?		✓		

- a) ***Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?***

Less Than Significant Impact With Mitigation. Special status plant and wildlife species have been given recognition by federal and/or State agencies and private conservation organizations because of a perceived or documented decline in the population size or geographic range of the species. Several special status plant and wildlife species are known to occur in the project area. Based on the *Park Avenue Bridge Natural Environment Study (NES)* prepared for the proposed project by RBF Consulting, 38 sensitive animal species, 29 sensitive plant species, and seven sensitive habitats have potential to occur in the project area; refer to Appendix C, *Natural Environmental Study* of this document for a list of these species and habitats.

As part of the NES, a habitat assessment was conducted to determine which sensitive biological species have the potential to occur in the project vicinity. The habitat assessment included a literature review, and a field survey of the project area. The literature review included a records search for sensitive biological resources with potential to occur on or within the vicinity of the project site. The



resources used for the literature reviewed included, but were not limited to, the Natural Resources Conservation Service (NRCS) Soil Survey, California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) Rarefind 5, and the California Native Plant Society (CNPSs) Rare and Endangered Vascular Plants of California. Literature detailing biological resources previously observed on or near the project site and historical land uses of the project site were reviewed to understand the extent of disturbances to the habitats on-site. This information provided background information needed for inventorying the biological resources potentially occurring on the project site. The field survey provided information of the existing conditions within the project vicinity and potential for sensitive biological resources to occur.

A field survey of the project site and surrounding area was conducted on May 2, 2014 by RBF Consulting. Plant communities in the vicinity of the project site, particularly within the Grand Canal, were evaluated for their potential to provide suitable habitat for sensitive plant and animal species, as well as the identification of corridors and linkages that may support the movement of animal through the area and fish passage. The majority of the project vicinity contains no natural plant communities, as the project area is developed with residential and commercial uses, paved surfaces, and landscaped areas consisting of non-native/ornamental vegetation. Based on the NES, the Grand Canal is the only area within the project vicinity that has potential to provide suitable habitat for sensitive aquatic plant and animal species. Eelgrass within the Grand Canal was identified as the only plant community able to provide suitable habitat for sensitive plant and animal species in the project area.

Animal species observed during the habitat assessment included avian species, fish, crustaceans, and mollusks. Avian species observed included rock pigeon (*Columba livia*), Caspian tern (*Hydroprogne caspia*), snowy egret (*Egretta thula*), house sparrow (*Passer domesticus*), barn swallow (*Hirundo rustica*), cliff swallow (*Petrochelidon pyrrhonota*), house finch (*Carpodacus mexicanus*), American crow (*Corvus brachyrhynchos*), western gull (*Larus occidentalis*), Forster's tern (*Sterna forsteri*), northern mockingbird (*Mimus polyglottos*), Allen's hummingbird (*Selasphorus sasin*), double-crested cormorant (*Phalacrocorax auritus*), great blue heron (*Ardea herodias*), black phoebe (*Sayornis nigricans*), and European starling (*Sturnus vulgaris*). Several small fish were observed within the low tide channel of the Grand Canal; however, these fish species were observed in the eel grass and could not be identified to species. Several fiddler crabs (*Uca spp.*) were observed on the un-vegetated mudflat during the habitat assessment. Barnacles (*Balanus spp.*) were also observed during the habitat assessment on the existing support pillars for Park Avenue Bridge, the concrete seawalls of the Grand Canal, and the wooden boat docks. The only mollusks observed during the habitat assessment included mussel (*Mytilus californianus*), which were observed on the existing support pillars for Park Avenue Bridge. The concrete seawalls and wooden boat docks also provide suitable habitat for mollusks to attach within the project area. None of the species observed during the field survey are considered sensitive species based on Federal, State, or local criteria.

ESSENTIAL FISH HABITAT AND EELGRASS

As discussed in the NES ([Appendix C](#)), the project site is not located within a federally designated Critical Habitat for any federally listed species. The Grand Canal, however, is designated as an Essential Fish Habitat (EFH), or waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. Within the project area, EFH extends north up the Grand Canal from Newport Bay approximately 400 feet, and south within the Grand Canal from Newport Bay approximately 800 feet. The existing Park Avenue Bridge is not located within EFH; however, the proposed location of the temporary bridge, located along Balboa Avenue, would be located within EFH.

As noted above, eelgrass is the only native plant community in the project area with potential to provide habitat for sensitive biological species. Eelgrass is a flowering, marine vascular plant that is considered a sensitive marine resource due to its nursery function for invertebrates and fishes, and because it is



considered critical foraging habitat for California least tern (*Sternula antillarum browni*), a federal and state endangered species. Eelgrass is protected by the Southern California Eelgrass Mitigation Policy, which requires impacts to this species be avoided, minimized, or compensated. Within the middle of the low tide channel of the Grand Canal, eelgrass is found for the entire extent of the Canal, except immediately under the existing Park Avenue Bridge.

A pre-construction eelgrass survey/EFH assessment was conducted as part of the NES to identify existing sensitive habitats (eelgrass) within the Grand Canal, and evaluate potential impacts to fish species and marine biological resources from construction related activities; refer to [Appendix C](#). Based on the results of the pre-construction eelgrass survey/EFH assessment, a dense assemblage of eelgrass is found throughout the Grand Canal, except under the existing Park Avenue Bridge. The areas north and south of Park Avenue Bridge are populated with eelgrass, which slowly become less abundant as the Grand Canal terminates into the main channel of Newport Bay. A high coverage of eelgrass was found in the area of the proposed location of the temporary bridge during the eelgrass survey/EFH assessment.

The proposed project would not result in direct impacts to eelgrass at either the Park Avenue Bridge site or temporary bridge site at Balboa Avenue. As noted above, eelgrass is not located beneath the existing Park Avenue Bridge, and the sheet piles proposed within the canal at the temporary bridge would occur in areas uninhabited by eelgrass. However, the project would result in indirect eelgrass impacts through the following activities: 1) construction activities in the canal that increase turbidity that could adversely affect eelgrass; and 2) the installation of a temporary bridge at Balboa Avenue that would cast a shadow that may adversely affect eelgrass. As such, Mitigation Measures BIO-1 and BIO-2 would be implemented to minimize impacts to eelgrass. Mitigation Measure BIO-1 would require pre- and post-construction surveys to ensure that significant impacts to eelgrass do not occur. Mitigation Measure BIO-2 would require mitigation for temporary eelgrass impacts in accordance with the Southern California Eelgrass Mitigation Policy to ensure short-term impacts are reduced to a level below significance.

NESTING BIRDS

No sensitive animal species were detected within the project area during the habitat assessment. Based on habitat requirements for specific species, availability and quality of habitats needed by each sensitive animal species, it was determined that the project site does not provide suitable habitat that would support any of these sensitive animal species known to occur in the general area. However, it was determined that Cooper's hawk (*Accipiter cooperii*), white-tailed kite (*Elanus leucurus*), and osprey (*Pandion haliaetus*) have a low potential to occur within the project area. The project area does not provide suitable nesting habitat for these avian species, but they can be observed foraging in or around Newport Bay.

Nesting birds are protected pursuant to the Migratory Bird Treaty Act (MBTA) and Fish and Game Code (Sections 3503, 3503.3, 3511, and 3513 of the Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs). In order to protect migratory bird species, Mitigation Measure BIO-3 would be implemented. This measure requires nesting bird clearance surveys prior to any vegetation removal or development that may disrupt migratory birds during the nesting season. Consequently, if avian nesting behaviors are disrupted, such as nest abandonment and/or loss of reproductive effort, it is considered "take" and is potentially punishable by fines and/or imprisonment.

The ornamental trees and shrubs associated with the developed areas within the project area have the potential to provide limited nesting opportunities for "crevice-dwelling" avian species. No nesting birds, active nests, or birds displaying nesting behaviors were observed during the habitat assessment. The habitat assessment was conducted during the breeding season and no nesting birds were observed. In



particular, no remnant or active swallow nests were observed under the existing Park Avenue Bridge during the habitat assessment. Several rock pigeons were observed roosting under the bridge, but no active nests were observed. Rock pigeons are not protected under the MBTA, therefore, if nesting, no avoidance and minimizations measures would need to be implemented. However, in compliance with the MBTA, the proposed project shall comply with Mitigation Measure BIO-3 to ensure impacts to special-status bird species would not occur.

Upon implementation of recommended mitigation measures, impacts to sensitive biological resources would be less than significant.

Mitigation Measures:

BIO-1 Prior to project implementation, the City of Newport Beach shall thoroughly map the area, distribution, density and relationship to depth contours of any eelgrass beds that have the potential to be directly or indirectly impacted by project construction. Factors to be considered in delineating potential habitat areas include appropriate circulation, light, sediment, slope, salinity, temperature, dissolved oxygen, depth, proximity to eelgrass, history of eelgrass coverage, etc. All mapping efforts should be completed during the active growth phase for the vegetation (generally March through October) and shall be valid for a period of 60 days with the exception of surveys completed in August - October. Surveys completed in August - October shall be valid until the resumption of active growth (i.e., in most instances, March 1).

After project construction, the City of Newport Beach shall conduct a post-project survey within 30 days and the results shall be sent to the resource agencies. The actual area of impact shall be determined from the post-project survey. An additional survey shall be completed after 12 months to ensure that the project or impacts attributable to the project have not exceeded the allowed limits. If the post-project or 12 month survey demonstrates a loss of eelgrass greater than the allowed limit, then mitigation pursuant to Sections 1-11 of the Southern California Eelgrass Mitigation Policy shall be required.

BIO-2 The City of Newport Beach shall ensure that compensatory mitigation is provided in accordance with the Southern California Eelgrass Mitigation Policy (NMFS, 1991 as amended, Revision 11) for temporary impacts to eelgrass. Such mitigation may include planting eelgrass within the temporarily affected area and throughout the Grand Canal to offset impacts to eelgrass and increase the amount of eelgrass within the Grand Canal. The City of Newport Beach shall develop the compensatory mitigation program in consultation with the resource agencies prior to any construction activities that have the capacity to result in adverse impacts to eelgrass. Per the Southern California Eelgrass Mitigation Policy, the ultimate mitigation ratio shall be dependent on the results of the pre- and post-construction eelgrass surveys, but shall be no less than a 1:1 mitigation ratio unless otherwise agreed upon by the resource agencies.

BIO-3 If construction occurs between February 1st and August 31st, the follow shall be implemented:

- A pre-construction survey shall be conducted prior to construction activities to determine the presence or absence of nesting birds within the BSA. A qualified biologist shall conduct the survey.
- If an active nest is found, the bird shall be identified to species and the approximate distance from the closest work site to the nest is estimated. No additional measures



need to be implemented if active nests are more than the following distances from the nearest work site: a) 500 feet for raptors or listed species; or b) 250 feet for non-listed passerines. Nests within these distances from the project site shall have a no-disturbance buffer implemented around them. The buffer shall be a minimum 250 feet for non-listed passerines and a minimum 500 feet for raptors or listed species. This distance may be increased according to the judgment of the qualified biologist, and may be decreased only with approval from the CDFW.

- A qualified biologist shall periodically monitor any confirmed nest sites (with no-disturbance buffers) during construction to determine if grading activities occurring outside the buffer zone disturb the birds and if the buffer zone should be increased to prevent nest abandonment. The nest trees shall be monitored until all nests have been abandoned (for non-project related reasons) or the young have fledged. If no nesting birds are found on-site during this time period, construction activities may continue as planned.

b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

Less Than Significant Impact With Mitigation. The NES prepared for the project examined potential impacts to riparian habitat and other sensitive natural communities. The only sensitive natural community located within the impact area would be EFH located within the Grand Canal; refer to Response 4.4(a), above. All other areas that would be impacted are developed, disturbed, or occupied by ornamental vegetation. The EFH offers high biological value (i.e., eelgrass) to fish species in the Grand Canal. As noted above, the proposed project would be required to implement Mitigation Measures BIO-1 and BIO-2 to minimize impacts to EFH in the Grand Canal during construction.

The NES prepared for the proposed project included the preparation of a Jurisdictional Delineation (JD) to determine potential project-related impacts to jurisdictional waters of the U.S. or State. Based on the JD, the Grand Canal is considered "Waters of the U.S." and would be subject to regulation by the U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB). The proposed project would result in 0.004 acres of permanent impacts and no temporary impacts at the Park Avenue Bridge site. The project would result in 0.004 acres of permanent impacts and 0.0006 acres of temporary impacts at the Balboa Avenue temporary bridge site.

As such, Mitigation Measure BIO-4 would be implemented. This measure would require that the City of Newport Beach coordinate with the USACE, RWQCB, and California Coastal Commission at the time the Corps Letter of Permission (LOP), Section 401 Water Quality Certification, and CCC Coastal Development Permit (CDP) applications are submitted to the agencies. Upon implementation of Mitigation Measures BIO-1, BIO-2, and BIO-4, impacts in this regard would be less than significant.

Mitigation Measures: Refer to Mitigation Measures BIO-1, BIO-2, and the following Mitigation Measure BIO-4.

BIO-4 Prior to any construction activity within the Grand Canal, the City of Newport Beach shall consult with the appropriate responsible resource agency (i.e., U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Coastal Commission) to verify delineation results, determine permanent losses and temporary impact areas, and identify compensatory mitigation, as applicable. Prior to undertaking ground-disturbing activities on or immediately adjacent to any aquatic resource areas, the City of Newport



Beach and/or their consultant shall obtain all obligatory discretionary permits/authorizations.

- c) ***Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?***

No Impact. Based on the NES for the proposed project, no jurisdictional wetlands occur within the boundaries of the project site. No impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

- d) ***Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?***

Less Than Significant Impact. Habitat linkages provide links between larger undeveloped habitat areas that are separated by development. Wildlife corridors are similar to linkages, but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species but inadequate for others. Wildlife corridors are significant features for dispersal, seasonal migration, breeding, and foraging. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

The project area does not support any migratory corridors or linkages. However, Newport Bay may provide a migration corridor for fish species migrating into the Upper Newport Bay Ecological Reserve, located approximately 1.5 miles north of the project site. The Upper Newport Bay Ecological Reserve is also located within the Pacific Flyway for migratory avian species. However, according to the NES, the proposed project would be limited to the Grand Canal and would not impact potential fish migration within Newport Bay or avian migration in the area. Additionally, the Orange County Natural Community Conservation Plan (NCCP) and Habitat Conservation Plan (HCP) do not identify any proposed Core or Linkage Areas on the project site. The nearest Core areas are found at Upper Newport Bay to the north, the Santa Ana River Mouth to the northwest, and the San Joaquin Hills to the southeast. As such, the project would not have the capability to interfere with wildlife movement, nor would it impede the use of wildlife nursery sites. Thus, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

- e) ***Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***

Less Than Significant Impact. The proposed project would not conflict with local policies or ordinances protecting biological resources. The primary documents applicable to the proposed project are the Natural Resources Element of the City's General Plan and the City's Coastal Land Use Plan (CLUP). Both of these documents contain policies regarding the preservation of natural and biological resources that apply to the proposed project. Table 4.4-1, General Plan and Coastal Land Use Plan Consistency Analysis, provides a consistency analysis of the applicable Natural Resources Element and CLUP policies and the proposed project.



As seen below in Table 4.4-1, the proposed project would be consistent with all policies regarding biological resources within the City’s Natural Resources Element, and the CLUP with implementation of Mitigation Measures BIO-1 through BIO-4.

Table 4.4-1
General Plan and Coastal Land Use Plan Policy Consistency Analysis

Policy	Consistency of Proposed Project with Current Policy
GENERAL PLAN	
NR 10.1 Terrestrial and Marine Resource Protection: Cooperate with the state and federal resource protection agencies and private organizations to protect terrestrial and marine resources.	<u>Consistent.</u> As discussed above, Mitigation Measure BIO-4 would require the project to consult with the appropriate responsible resource agency (i.e., U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Coastal Commission) to verify delineation results, determine permanent losses and temporary impact areas, and identify compensatory mitigation, as applicable. In addition, in support of the Federal funding process for the project, the California Department of Transportation (Caltrans) has requested EFH consultation with the National Marine Fisheries Service (NMFS) for impacts to eelgrass.
NR 10.2 Orange County Natural Communities Conservation Plan: Comply with the policies contained within the Orange County Natural Communities Conservation Plan.	<u>Consistent.</u> As discussed below in Response 4.4(f), the proposed project would not result in significant impacts to biological resources, and would not conflict with the provisions of the NCCP with implementation of Mitigation Measures BIO-1 through BIO-4.
NR 10.3 Analysis of Environmental Study Areas: Require a site-specific survey and analysis prepared by a qualified biologist as a filing requirement for any development permit applications where development would occur within or contiguous to areas identified as ESAs.	<u>Consistent.</u> As discussed above, the City has conducted a detailed NES and EFH Assessment to determine project impacts to sensitive environmental resources. The City of Newport Beach would be required to complete pre- and post-construction surveys to ensure that project impacts have not exceeded the allowed limits (Mitigation Measure BIO-1) for loss of eelgrass in the Grand Canal. If the post-project surveys demonstrate a loss of eelgrass greater than the allowed limit, mitigation pursuant to Sections 1-11 of the Southern California Eelgrass Mitigation Policy shall be required as noted under Mitigation Measure BIO-2.
NR 10.4 New Development Siting and Design: Require that the siting and design of new development, including landscaping and public access, protect sensitive or rare resources against any significant disruption of habitat values.	<u>Consistent.</u> Compliance with Mitigation Measures BIO-1 through BIO-4 would ensure that sensitive and/or rare species and other biological resources are not significantly affected as a result of construction and operation of the proposed project.
NR 10.7 Exterior Lighting: Shield and direct exterior lighting away from significant or rare biological resources to minimize impacts to wildlife.	<u>Consistent.</u> As discussed in <u>Section 4.1, Aesthetics</u> , the project would be required to comply with Mitigation Measure AES-2, which requires the City of Newport Beach Public Works Department to ensure that the contract documents require the construction contractor and/or bridge contractor to use the minimum amount and intensity of lighting required for safety purposes. The lighting shall be shielded and directed towards the specific area of construction, and away from surrounding sensitive uses to the extent practicable. During long-term operations, the proposed lighting would be similar in intensity and nature to what currently exists at the Park Avenue Bridge, and would not have the potential to adversely affect biological resources.



Table 4.4-1 [continued]
General Plan and Coastal Land Use Plan Policy Consistency Analysis

Policy	Consistency of Proposed Project with Current Policy
<p>NR 11.3 Eelgrass Protection: Avoid impacts to eelgrass (<i>Zostera marina</i>) to the extent feasible. Mitigate losses of eelgrass in accordance with the Southern California Eelgrass Mitigation Policy. Encourage the restoration of eelgrass in Newport Harbor at appropriate sites, where feasible.</p>	<p><u>Consistent.</u> As discussed above, the project would be required to comply with Mitigation Measure BIO-1. Mitigation Measure BIO-1 requires a pre- and post-construction survey of the Grand Canal to ensure that the project or impacts attributable to the project have not exceeded the allowed limits for loss of eelgrass. Mitigation Measure BIO-2 requires compensatory mitigation for the loss of eelgrass in accordance with the Southern California Eelgrass Mitigation Policy. Such mitigation may include planting eelgrass within the temporarily affected area and throughout the Grand Canal to offset impacts to eelgrass and increase the amount of eelgrass within the Grand Canal.</p>
<p>NR 11.4 Interagency Coordination on Establishing Eelgrass Restoration Sites. Cooperate with the County of Orange, the U.S. Army Corps of Engineers, and resource agencies to establish eelgrass restoration sites.</p>	<p><u>Consistent.</u> As discussed above, Mitigation Measure BIO-4 would require the project to consult with the appropriate responsible resource agency (i.e., U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Coastal Commission) to verify delineation results, determine permanent losses and temporary impact areas, and identify compensatory mitigation, as applicable. In addition, compliance with Mitigation Measures BIO-1 and BIO-2 would reduce any potential impacts to eelgrass to a less than significant level. In addition, in support of the Federal funding process for the project, Caltrans has requested EFH consultation with the NMFS for impacts to eelgrass.</p>
<p>NR 11.5 Eelgrass Mitigation: Allow successful eelgrass restoration sites to serve as mitigation sites for City projects and as a mitigation bank from which eelgrass mitigation credits will be issued to private property owners for eelgrass removal resulting from dock and channel dredging projects.</p>	<p><u>Consistent.</u> As discussed above, the project may be required to implement compensatory mitigation for the loss of eelgrass, which may include planting eelgrass within the temporarily affected area and throughout the Grand Canal to offset impacts to eelgrass and increase the amount of eelgrass within the Grand Canal.</p>
COASTAL LAND USE PLAN	
<p>4.1.1-2: Require a site-specific survey and analysis prepared by a qualified biologist as a filing requirement for coastal development permit applications where development would occur within or adjacent to areas identified as a potential ESHA. Identify ESHA as habitats or natural communities listed in Section 4.1.1 that possess any of the attributes listed in Policy 4.1.1-1. The ESA's depicted on Map 4-1 shall represent a preliminary mapping of areas containing potential ESHA.</p>	<p><u>Consistent.</u> As noted above, the City has conducted a detailed NES and EFH Assessment to determine project impacts to sensitive environmental resources. In addition, Mitigation Measure BIO-1 would require the City to complete a pre- and post-construction survey of the project area, including the Grand Canal. The survey would a through mapping of the area, distribution, density and relationship to depth contours of any eelgrass beds that have the potential to be directly or indirectly impacted by project construction. An additional survey would be conducted 12 months after project completion to ensure that that the project or impacts attributable to the project have not exceeded the allowed limits. If the post-project or 12 month survey demonstrates a loss of eelgrass greater than the allowed limit, then mitigation pursuant to Sections 1-11 of the Southern California Eelgrass Mitigation Policy shall be required as noted under Mitigation Measure BIO-2. Per the Southern California Eelgrass Mitigation Policy, the ultimate mitigation ratio shall be dependent on the results of the pre- and post-construction eelgrass surveys, but shall be no less than a 1:1 mitigation ratio unless otherwise agreed upon by the resource agencies.</p>



Table 4.4-1 [continued]
General Plan and Coastal Land Use Plan Policy Consistency Analysis

Policy	Consistency of Proposed Project with Current Policy
4.1.4-1: Continue to protect eelgrass meadows for their important ecological function as a nursery and foraging habitat within the Newport Bay ecosystem.	<u>Consistent.</u> Implementation of Mitigation Measures BIO-1 BIO-2, and BIO-4 would ensure that eelgrass within the Grand Canal would not be impacted by the proposed project.
4.1.4-3: Site and design boardwalks, docks, piers, and other structures that extend over the water to avoid impacts to eelgrass meadows. Encourage the use of materials that allow sunlight penetration and the growth of eelgrass.	<u>Consistent.</u> Although the project would include a temporary bridge structure along Balboa Avenue (including temporary piles in the Grand Canal), this would be short-term in nature and would not result in long-term impacts to eelgrass. The new bridge structure along Park Avenue would include permanent piles in the Grand Canal; however, as discussed above and in the NES, eelgrass and EFH do not exist in the immediate vicinity of the existing Park Avenue Bridge structure. Further, implementation of Mitigation Measures BIO-1, BIO-2, and BIO-4 would ensure that impacts to eelgrass within the Grand Canal would be mitigated to the furthest extent possible.
4.1.4-5: Where applicable require eelgrass and <i>Caulerpa taxifolia</i> surveys to be conducted as a condition of City approval for projects in Newport Bay in accordance with operative protocols of the <i>Southern California Eelgrass Mitigation Policy</i> and <i>Caulerpa taxifolia</i> Survey protocols.	<u>Consistent.</u> The City has conducted a detailed NES and EFH Assessment to determine project impacts to sensitive environmental resources. In addition, Mitigation Measure BIO-1 requires the City to conduct pre- and post-construction eelgrass surveys within the Grand Canal, in compliance with the Southern California Eelgrass Mitigation Policy, to ensure that the project or impacts attributable to the project have not exceeded the allowed limits. If the post-project or 12 month survey demonstrates a loss of eelgrass greater than the allowed limit, then mitigation pursuant to Sections 1-11 of the Southern California Eelgrass Mitigation Policy shall be required as noted under Mitigation Measure BIO-2.
4.2.5-1: Avoid impacts to eelgrass (<i>Zostera marina</i>) to the greatest extent possible. Mitigate losses of eelgrass at a 1.2 to 1 mitigation ratio and in accordance with the <i>Southern California Eelgrass Mitigation Policy</i> . Encourage the restoration of eelgrass throughout Newport Harbor where feasible.	<u>Consistent.</u> As discussed above, the City of Newport Beach would be required to complete a pre- and post-construction survey to determine to ensure that the project or impacts attributable to the project have not exceeded the allowed limits (Mitigation Measure BIO-1). If any of the post-project surveys demonstrate a loss of eelgrass greater than the allowed limit, mitigation pursuant to Sections 1-11 of the Southern California Eelgrass Mitigation Policy shall be required as noted under Mitigation Measure BIO-2..

In addition, the only local tree ordinance that would apply to the project would be Local Council Policy G-1 (Retention or Removal of City Trees), and Chapter 7.26 (Protection of Natural Habitat for Migratory and Other Waterfowl) of the Municipal Code also provides guidance for tree maintenance and preservation. Nominal vegetation removal would be required for the proposed project. Vegetation removal would be limited to minor ornamental landscape removal, and would not require the permanent removal of any trees. As such, the proposed project would be consistent with the City's Local Council Policy G-1 (Retention or Removal of City Trees), and Chapter 7.26 (Protection of Natural Habitat for Migratory and Other Waterfowl) of the Municipal Code.

As described above, the project would not result in conflicts with local policies or ordinances protecting biological resources. Impacts in this regard would be less than significant upon implementation of Mitigation Measures BIO-1 through BIO-4.

Mitigation Measures: Refer to Mitigation Measures BIO-1 through BIO-4.



f) ***Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?***

Less Than Significant Impact. According to the California Department of Fish and Wildlife's *California Regional Conservation Plans* map, the proposed project is located within the Orange County Central/Coastal Natural Community Conservation Plan (NCCP).¹ However, as discussed above within Responses 4.4(a) through 4.4(e), the proposed project would not result in significant impacts to biological resources, and would not result in conflicts with provisions of the NCCP. As such, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

¹ California Department of Fish and Wildlife, *HCP/NCCP California Regional Conservation Plans*, October 2013.



4.5 CULTURAL RESOURCES

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5?				✓
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?		✓		
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		✓		
d. Disturb any human remains, including those interred outside of formal cemeteries?		✓		

a) ***Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5?***

No Impact. As part of the *Historic Property Survey Report* (HPSR) prepared for the proposed project (refer to Appendix D, *Historic Property Survey Report*, of this document), a cultural resources records search was performed at the South Central Coastal Information Center (SCCIC) in order to obtain information regarding any potential historical resources within a one-mile radius surrounding the project site. According to the HPSR, there are no known historical resources located within the boundaries of the project site. The records search did indicate, however, that there are eight previously-recorded historic-era resources located within a one-mile radius of the project site. Only one of these eight resources (Wilma's Patio restaurant, formerly the Jolly Roger restaurant) is located on Balboa/Little Balboa Island. Wilma's Patio is located over 200 feet northwest of the Park Avenue Bridge project site, and would not be affected by construction activities. Given the localized nature of project improvements and the fact that these eight historic-era resources are located outside of the project footprint, none of these resources would be affected by the proposed project.

According to the HPSR, the existing Park Avenue Bridge was built in 1930 and lacks historical integrity due to several bridge rehabilitations in the past. As such, the Park Avenue Bridge is not eligible for inclusion in the NHRP, or California Register of Historical Resources (CRHR), per the California Department of Transportation (Caltrans) Historic Bridge Inventory.¹ As such, the demolition and replacement of the Park Avenue Bridge would not represent an impact to a historic resource.

Based on the analysis provided above, there are no historical resources that would be affected by the project, and no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

b) ***Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?***

Less Than Significant Impact With Mitigation Incorporated. The HPSR prepared for the project also included a detailed analysis of potential impacts to archaeological resources. Based on the archaeological records search performed at the SCCIC, a total of 25 archaeological sites have been

¹ Cogstone Resource Management, *Historic Property Survey Report*, August 2014.



formally recorded within a one-mile radius of the site. However, no archaeological resources have been recorded within or immediately adjacent to the project site.

In addition, the HPSR included an intense-level pedestrian survey of the project site (including the proposed temporary bridge location) and immediately surrounding areas that was conducted on June 17, 2014. Based on the field survey, no archaeological resources were identified within or immediately adjacent to the project site.

A review of the Native American Heritage Commission's (NAHC) Sacred Lands database did not find any Native American sacred sites or resources within 0.5-mile radius of the project site. Additionally, none of the Native American representatives contacted during preparation of the HPSR had any specific knowledge of any sacred site within the project area.

The project site is located on a man-made island that was created in the early 20th century piling dredged sand and silt from the harbor onto a standing mudflat. The Grand Canal was constructed in 1913 to create another island adjacent to Balboa Island (Little Balboa Island). New bridge piling at both the Park Avenue Bridge and temporary bridge would be vibrated into place, and not excavated, and the majority of ground disturbance would occur within and immediately adjacent to the canal. Thus, the potential for discovery of archaeological deposits is considered very low. However, if previously unidentified cultural archaeological materials are discovered during construction, all work would be halted in the area of discovery until a qualified archaeologist has the opportunity to evaluate the nature and significance of the find (Mitigation Measure CUL-1). Compliance with Mitigation Measure CUL-1 would result in a less than significant impact in this regard.

Mitigation Measure:

CUL-1 If evidence of subsurface archaeological resources is found during construction, excavation and other construction activity in that area shall cease and the construction contractor shall contact the City of Newport Beach Community Development Director. With direction from the Community Development Director, an archaeologist certified by the County of Orange shall be retained to evaluate the discovery prior to resuming grading in the immediate vicinity of the find. If warranted, the archaeologist shall collect the resource and prepare a technical report describing the results of the investigation. The test-level report shall evaluate the site including discussion of significance (depth, nature, condition and extent of the resources), final mitigation recommendations, and cost estimates.

c) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Less Than Significant Impact With Mitigation Incorporated. As noted above, the project site is located on a man-made island that was created in the early 20th century piling dredged sand and silt from the harbor onto a standing mudflat. The Grand Canal was constructed in 1913 to create another island adjacent to Balboa Island (Little Balboa Island). The project site and surrounding area have been impacted by existing development (adjacent residential/commercial uses, Park Avenue Bridge, and local roadways). Moreover, according to the *City of Newport Beach General Plan*, the project site is not located within an area known for paleontological resources. Although paleontological resources are not expected to be encountered during ground-disturbing activities, Mitigation Measure CUL-2 has been included in order to minimize impacts in the event an unexpected discovery occurs. Upon implementation of recommended mitigation, impacts would be less than significant in this regard.



Mitigation Measures:

CUL-2 If evidence of subsurface paleontological resources is found during construction, excavation and other construction activity in that area shall cease and the construction contractor shall contact the City of Newport Beach Community Development Director. With direction from the Community Development Director, a paleontologist certified by the County of Orange shall evaluate the find. If warranted, the paleontologist shall prepare and complete a standard Paleontological Resources Mitigation Program for the salvage and curation of identified resources.

d) ***Disturb any human remains, including those interred outside of formal cemeteries?***

Less Than Significant Impact With Mitigation Incorporated. Given the developed and disturbed nature of the project site, no known human remains, including those interred outside of formal cemeteries, are expected to be encountered during earth removal or disturbance activities. If human remains are found, those remains would require proper treatment, in accordance with applicable laws. State of California Public Resources Health and Safety Code Section 7050.5-7055 describe the general provisions for human remains. Specifically, Health and Safety Code Section 7050.5 describes the requirements if any human remains are accidentally discovered during excavation of a site. As required by State law, the requirements and procedures set forth in Section 5097.98 of the California Public Resources Code would be implemented, including notification of the County Coroner, notification of the Native American Heritage Commission and consultation with the individual identified by the Native American Heritage Commission to be the "most likely descendant." If human remains are found during excavation, excavation must stop in the vicinity of the find and any area that is reasonably suspected to overlay adjacent remains until the County coroner has been called out, and the remains have been investigated and appropriate recommendations have been made for the treatment and disposition of the remains. Following compliance with existing State regulations, which detail the appropriate actions necessary in the event human remains are encountered, impacts in this regard would be considered less than significant.

Mitigation Measures: No mitigation is required.



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4.6 GEOLOGY AND SOILS

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				✓
2) Strong seismic ground shaking?		✓		
3) Seismic-related ground failure, including liquefaction?		✓		
4) Landslides?			✓	
b. Result in substantial soil erosion or the loss of topsoil?			✓	
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		✓		
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?		✓		
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				✓

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

- 1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

No Impact. Southern California, including the project area, is subject to the effects of seismic activity due to the active faults that traverse the area. Active faults are defined as those that have experienced surface displacement within Holocene time (approximately the last 11,000 years) and/or are in a State-designated Alquist-Priolo Earthquake Fault Zone.

According to the *California Department of Conservation Alquist-Priolo Fault Zones Earthquake Map*, no Alquist-Priolo Earthquake Fault Zones traverse the project area.¹ Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

¹ California Department of Conservation, *Regional Geologic Hazards and Mapping Program*, accessed June 9, 2014 at <http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm>.



2) **Strong seismic ground shaking?**

Less Than Significant Impact With Mitigation Incorporated. Southern California has numerous active seismic faults subjecting residents to potential earthquake and seismic-related hazards. Seismic activity poses two types of potential hazards for residents and structures, categorized either as primary or secondary hazards. Primary hazards include ground rupture, ground shaking, ground displacement, subsidence, and uplift from earth movement. Primary hazards can also induce secondary hazards such as ground failure (lurch cracking, lateral spreading, and slope failure), liquefaction, water waves (seiches), movement on nearby faults (sympathetic fault movement), dam failure, and fires.

Although no active faults are known to be present within the project vicinity, there are four major fault zones in the surrounding area that have the highest potential to impact the project.² These faults are listed in Table 4.6-1, Principal Faults Affecting the Project Area.

**Table 4.6-1
Principal Faults Affecting the Project Area**

Fault Name	Approximate Distance From Site (Miles) ¹	Maximum Credible Earthquake Magnitude ²
Newport-Inglewood Fault Zone	1.6	7.4
San Joaquin Hills Blind Thrust	5.7	N/A
Whittier Fault Zone	25	6.0-7.2
Elysian Park Fault Zone	36	N/A
Notes: 1. Distances were measured using Google Earth, 2014. 2. Per the Southern California Earthquakes Center, accessed on June 9, 2014 at http://www.scec.org/		

Given the proximity of these earthquake faults to the project area, the proposed project could be subjected to seismic shaking. The proposed project would include the installation of a temporary bridge at Balboa Avenue, demolition of the existing Park Avenue Bridge, and the construction of a new bridge structure connecting Balboa Island to Little Balboa Island. As noted above, the existing Park Avenue Bridge is over 80 years old and does not meet current bridge design and seismic safety standards. The proposed project would result in the construction of a new bridge meeting current engineering standards. Both the temporary and permanent bridges would be required to adhere to existing parameters for seismic safety as described within the *Caltrans Seismic Design Criteria* and *Caltrans Bridge Design Aids*. The *Caltrans Seismic Design Criteria* and *Caltrans Bridge Design Aids* provide a detailed outline of seismic demands placed upon structural components, required capacities for structural components, and detailed design recommendations for bridge components, including foundation, columns, and abutments. Thus, upon implementation of Mitigation Measure GEO-1, impacts in this regard would be less than significant.

² City of Newport Beach, *City of Newport Beach Safety Element*, July 2006.



Mitigation Measure:

GEO-1 Prior to the approval of design plans for the proposed project, the City of Newport Beach Department of Public Works shall ensure that the proposed project meets the design parameters identified in the *Caltrans Seismic Design Criteria* and *Caltrans Bridge Design Aids*.

3) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact With Mitigation Incorporated. Liquefaction of cohesionless soils can be caused by strong vibratory motion due to earthquakes. Liquefaction is characterized by a loss of shear strength in the affected soil layers, thereby causing the soils to behave as a viscous liquid. Susceptibility to liquefaction is based on geologic and geotechnical data. River channels and floodplains are considered most susceptible to liquefaction, while alluvial fans have a lower susceptibility. Depth to groundwater is another important element in the susceptibility to liquefaction. Groundwater shallower than 30 feet results in high to very high susceptibility to liquefaction, while deeper water results in low and very low susceptibility.

Based upon the City of Newport Beach General Plan Safety Element, the project area is subject to the potential for liquefaction. However, as stated within Response 4.6(a)(2), above, the project would incorporate all *Caltrans Seismic Design Criteria* and *Caltrans Bridge Design Aids*, which account for potential stability concerns such as liquefaction. Thus, upon adherence to Mitigation Measure GEO-1, impacts in this regard would be less than significant.

Mitigation Measures: Refer to Mitigation Measure GEO-1.

4) Landslides?

Less Than Significant Impact. Landslides are a serious geologic hazard, with some moving slowly and causing damage gradually, and others moving rapidly and causing unexpected damage. Gravity is the force driving landslide movement. Factors that commonly allow the force of gravity to overcome the resistance of earth material to landslide movement include saturation by water, steepening of slopes by erosion or construction, alternate freezing or thawing, and seismic shaking.

The proposed project area and surrounding areas are fully developed. No steep hillsides or unvegetated slopes exist within the site vicinity. According to the Newport Beach General Plan Safety Element, the project site and surrounding area are not designated as areas with landslide potential. As such, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Refer to Response 4.9(a) for a detailed response regarding the potential for water quality impacts (including soil erosion and the loss of topsoil) during the short-term construction process and long-term operations. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.



- c) ***Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?***

Less Than Significant Impact With Mitigation Incorporated. Based on analysis provided in Response 4.6(a)(4), the project would not result in significant impacts related to on-site or off-site landslides. In addition, Response 4.6(a)(3) provides that Mitigation Measure GEO-1 would mitigate impacts related to liquefaction to a less than significant level.

Based on United States Department of Agriculture (USDA) National Resources Conservation Service (NRCS) Web Soil Survey, the project area (including the Balboa Avenue temporary bridge location) is underlain by sandy, gravelly, or cobbly coastal shores that are washed and reworked by tidal and wave action. These soils have slow runoff and a high erosion hazard. As such, although the project may be subject to hazards related to lateral spreading, subsidence, and collapse, the project would be designed in accordance with the *Caltrans Seismic Design Criteria* and *Caltrans Bridge Design Aids*, which account for potential stability concerns. Thus, upon adherence to Mitigation Measure GEO-1, impacts in this regard would be less than significant.

Mitigation Measure: Refer to Mitigation Measure GEO-1.

- d) ***Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?***

Less Than Significant Impact With Mitigation Incorporated. Refer to Response 4.6(c), above. The project area is underlain by sandy, gravelly, or cobbly coastal shores. These soils could be subject to settlement and/or instability. Upon implementation of Mitigation Measure GEO-1, impacts in this regard would be less than significant.

Mitigation Measures: Refer to Mitigation Measure GEO-1.

- e) ***Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?***

No Impact. No septic tanks or alternative wastewater systems would be constructed as part of the project, and no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.



4.7 GREENHOUSE GASES

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✓	
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			✓	

- a) ***Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***

Less Than Significant Impact.

GLOBAL CLIMATE CHANGE

California is a substantial contributor of global greenhouse gases (GHGs), emitting over 400 million tons of carbon dioxide (CO₂) per year.¹ Climate studies indicate that California is likely to see an increase of three to four degrees Fahrenheit (°F) over the next century. Methane is also an important GHG that potentially contributes to global climate change. GHGs are global in their effect, which is to increase the earth's ability to absorb heat in the atmosphere. As primary GHGs have a long lifetime in the atmosphere, accumulate over time, and are generally well-mixed, their impact on the atmosphere is mostly independent of the point of emission.

The impact of human activities on global climate change is apparent in the observational record. Air trapped by ice has been extracted from core samples taken from polar ice sheets to determine the global atmospheric variation of CO₂, methane (CH₄), and nitrous oxide (N₂O) from before the start of industrialization (approximately 1750), to over 650,000 years ago. For that period, it was found that CO₂ concentrations ranged from 180 parts per million (ppm) to 300 ppm. For the period from approximately 1750 to the present, global CO₂ concentrations increased from a pre-industrialization period concentration of 280 ppm to 379 ppm in 2005, with the 2005 value far exceeding the upper end of the pre-industrial period range.

REGULATIONS AND SIGNIFICANCE CRITERIA

The Intergovernmental Panel on Climate Change (IPCC) developed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. It concluded that a stabilization of GHGs at 400 to 450 ppm carbon dioxide-equivalent (CO₂eq)² concentration is required to keep global mean warming below 2 degrees Celsius (°C), which in turn is assumed to be necessary to avoid dangerous climate change.

Executive Order S-3-05 was issued in June 2005, which established the following GHG emission reduction targets:

¹ California Energy Commission, California Greenhouse Gas Inventory for 2000-2012, May 13, 2014.

² Carbon Dioxide Equivalent (CO₂eq) – A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.



- 2010: Reduce GHG emissions to 2000 levels;
- 2020: Reduce GHG emissions to 1990 levels; and
- 2050: Reduce GHG emissions to 80 percent below 1990 levels.

Assembly Bill (AB) 32 requires that the California Air Resources Board (CARB) determine what the statewide GHG emissions level was in 1990, and approve a statewide GHG emissions limit that is equivalent to that level, to be achieved by 2020. CARB has approved a 2020 emissions limit of 427 million metric tons (MMT) of CO₂eq.

Due to the nature of global climate change, it is not anticipated that any single development project would have a substantial effect on global climate change. In actuality, GHG emissions from the proposed project would combine with emissions emitted across California, the United States, and the world to cumulatively contribute to global climate change.

In June 2008, the California Governor's Office of Planning and Research (OPR) published a Technical Advisory, which provides informal guidance for public agencies as they address the issue of climate change in CEQA documents.³ This is assessed by determining whether a proposed project is consistent with or obstructs the 39 Recommended Actions identified by CARB in its Climate Change Scoping Plan which includes nine Early Action Measures (qualitative approach). The Attorney General's Mitigation Measures identify areas where GHG emissions reductions can be achieved in order to achieve the goals of AB 32. As set forth in the OPR Technical Advisory and in the proposed amendments to the CEQA Guidelines Section 15064.4, this analysis examines whether the project's GHG emissions are significant based on a qualitative and performance based standard (Proposed CEQA Guidelines Section 15064.4(a)(1) and (2)).

PROJECT-RELATED SOURCES OF GREENHOUSE GASES

Project-related GHG emissions would include direct emissions from construction activities only. Other direct source emissions (area source and mobile source) would not occur, as the project does not propose any new land uses and would not generate any new vehicle trips. No indirect GHG emissions would occur, as the project would not require electricity or water. The proposed project would result in direct emissions of CO₂, N₂O, and CH₄ from construction activities. Construction related GHG emissions include those produced as a result of: material processing, on-site construction equipment, and traffic delays due to construction. These emissions would be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases. Project construction would result in minimal GHG emissions (approximately 421.08 MTCO₂eq/yr, see Appendix B), which are short-term and would terminate upon completion of construction. Additionally, the SCAQMD has not adopted quantitative GHG emissions thresholds of significance for construction related activities. Therefore, project-related construction GHG emissions are considered to be less than significant.

Mitigation Measures: No mitigation is required.

b) *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

Less Than Significant Impact. The City does not currently have an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. However, the City prepared an

³ Governor's Office of Planning and Research, *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*, 2008.



Energy Action Plan, created in partnership with Southern California Edison (SCE) and Southern California Gas Company (SCG). The Plan provides the City guidance in reducing greenhouse emissions by lowering municipal and community wide energy use. The Plan assists in identifying a clear path to successfully implementing goals, policies, and actions that will achieve the City's reduction targets. Additionally, the City entered into the Orange County Cities Energy Leadership Partnership Program (OCCELP), a joint partnership with Southern California Edison (SCE), Southern California Gas Company and neighboring cities Fountain Valley, Westminster and Costa Mesa to improve long term energy and sustainability throughout the local area.

The proposed project would result in minimal construction-related GHG emissions, and would not generate any operational GHG emissions. Thus, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Impacts are less than significant in this regard.

Mitigation Measures: No mitigation is required.



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4.8 HAZARDS AND HAZARDOUS MATERIALS

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		✓		
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				✓
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				✓
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				✓
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				✓
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			✓	
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				✓

RBF Consulting prepared a *Phase I Initial Site Assessment* (Phase I ISA) dated July 2014 for the project site (refer to [Appendix E, Phase I Initial Site Assessment](#)). The intent of the Phase I ISA is to identify conditions indicative of releases or threatened releases of hazardous substances as defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) section 101, and petroleum products at the project site. The Phase I ISA included a search for recorded environmental cleanup liens; review of Federal, tribal, State, and local government records; visual inspection of the property and of adjoining properties; and interviews with current owners, operators, and occupants.

a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Less Than Significant Impact. The short-term construction process for the proposed project would not involve the routine transport, use, or disposal of hazardous materials. With the exception of utilizing gasoline, diesel fuel, and lubricants for construction equipment, no other hazardous materials would be transported to or from the project site, or used in the construction process. Fuels and solvents for construction would be stored and utilized pursuant to existing regulatory requirements. Therefore, short-term construction impacts would be less than significant in this regard.



Long-term operation of the proposed bridge facility would not itself require the transport, use, or disposal of hazardous materials. However, it is reasonable to assume that vehicles transporting hazardous materials to other destinations in the project area could utilize the proposed bridge facility since it represents the only connection between Balboa Island and Little Balboa Island. However, the existing Park Avenue Bridge currently provides such access, and adherence to existing Federal and State standards would reduce any potential impacts from routine transport of hazardous materials to a less than significant level. These standards include *Code of Federal Regulations (CFR) Title 49, Part 177, Carriage by Public Highway*, which sets standards for acceptable types of hazardous materials that can be transported by vehicle, inspections, driver training, recordkeeping, and loading and unloading; *California Health and Safety Code Division 20, Chapter 6.5*, which sets strict permitting requirements for hazardous waste haulers and establishes contingency measures in the event of upset. Upon adherence to these existing standards, impacts would be less than significant in regards to the transport of hazardous materials.

Mitigation Measures: No mitigation is required.

- b) ***Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?***

Less Than Significant Impact With Mitigation Incorporated.

Short-Term Impacts

One of the means through which human exposure to hazardous substance could occur is through accidental release. Incidents that result in an accidental release of hazardous substance into the environment can cause contamination of soil, surface water, and groundwater, in addition to any toxic fumes that might be generated. If not cleaned up immediately and completely, the hazardous substances can migrate into the soil or enter a local stream or channel causing contamination of soil and water. Human exposure of contaminated soil or water can have potential health effects on a variety of factors, including the nature of the contaminant and the degree of exposure.

During the short-term period of project construction, there is a possibility of accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluid used for construction equipment. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials utilized during construction. The construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and Federal law.

The construction process may result in impacts related to existing hazardous materials located within the impact area. The analysis of existing hazardous materials is based upon the *Phase I ISA* prepared for the proposed project (refer to [Appendix E](#) of this document), which included a review of historical and regulatory hazardous materials information/databases, interviews with key site personnel/property owners, and a field review of on-site conditions.¹

Based on the *Phase I ISA*, a number of potential sources of hazardous materials were determined to be present on-site, or are likely to be located on-site, as follows:

¹ RBF Consulting, *Phase I Initial Site Assessment, Park Avenue Bridge Replacement Project*, July 2014.



- Traffic Striping Materials: Lead-based paints (LBP) were commonly used in yellow traffic striping materials before the discontinued use of lead chromate pigment in yellow traffic striping/markings materials and hot-melt Thermoplastic stripe materials (discontinued in 1996 and 2004, respectively). Yellow traffic striping was observed within the boundaries of the project site during the site inspection. Although the on-site striping materials are currently contained and no visible evidence to suggest the release of LBPs into the environment was present, Mitigation Measure HAZ-1 has been provided to ensure that potential LBP materials are properly disposed of and that impacts in this regard would be less than significant.
- On-Site Utilities: Three pole-mounted transformers were noted on-site during site reconnaissance for the *Phase I ISA*. Transformers are known to contain polychlorinated biphenyls (PCBs). No evidence of di-electric fluid or staining was noted during the site inspection.² However, Mitigation Measure HAZ-2 has been included in order to minimize potential impacts to human health during construction with regard to potential in on-site transformers.
- Asbestos Containing Materials (on-site bridge structure): As asbestos-containing materials (ACMs) are commonly known to be used in building materials for bridge structures, ACMs may be present in the on-site bridge structure (constructed prior to 1934). No visible evidence to suggest the release of ACMs into the environment was observed. However, during demolition of the on-site bridge structure, an accidental release of ACMs could expose construction workers and the public to hazardous conditions. All demolition that could result in the release of ACMs must be conducted according to Federal and State standards. Compliance with recommended mitigation (Mitigation Measures HAZ-3 and HAZ-4) regarding the notification of workers as to the presence of ACMs, asbestos testing, and proper handling/disposal in compliance with Federal and State requirements and South Coast Air Quality Management District (SCAQMD) Rule 1403, would reduce potential impacts associated with ACMs/ACCMs to a less than significant level.

Lead-Based Paint (on-site bridge structure): Given the age of the existing bridge structure on-site, the bridge is also likely to contain lead-based paints (LBPs). Similar to ACMs, Federal and State regulations govern demolition of structures where LBPs are present. If paint is separated from the existing bridge structure (chemically or physically) during demolition, structures, the paint waste would be required to be evaluated independently from the building material by a qualified Environmental Professional (Mitigation Measure HAZ-5). If LBP is found, abatement would be required to be completed by a qualified Lead Specialist before any demolition activities. Compliance with Mitigation Measure HAZ-5 would reduce potential impacts associated with LBPs to a less than significant level.

Long-Term Operational Impacts

Refer to Response 4.8(a), above, for a description of impacts related to existing and proposed operations at the site. Impacts in this regard would be less than significant.

² Ibid.



Mitigation Measures:

- HAZ-1 In the event construction activities associated with the proposed project result in the disturbance of traffic striping materials, the City of Newport Beach Public Works Department shall ensure that generated wastes are transported and disposed of at an appropriate, permitted disposal facility as determined by a qualified lead specialist. The traffic striping materials shall be contained/transported and properly disposed of in accordance with the Federal, State, and local laws and regulations.
- HAZ-2 In the event any pole-mounted electrical transformer must be relocated during project construction activities, the construction contractor shall ensure that the relocation is conducted under the local purveyor to identify properly-handling procedures regarding potential PCBs, if applicable.
- HAZ-3 Prior to demolition of the existing bridge structure, a Certified Environmental Professional shall be retained by the City of Newport Beach to confirm the presence or absence of ACMs. Abatement of asbestos shall be completed before any activities that would disturb ACMs or create an airborne asbestos hazard. Asbestos removal shall be performed by a State certified asbestos containment contractor in accordance with the South Coast Air Quality Management District (SCAQMD) Rule 1403.
- HAZ-4 Prior to demolition activities, procedures shall be established, subject to review and approval by the City of Newport Beach Public Works Department, whereby all utility personnel and contractors who may be conducting work within the buildings shall be informed, prior to initiating work, as to the presence of ACMs, their location, type, and conditions.
- HAZ-5 During demolition of the existing bridge structure, the generated waste shall be disposed of at an appropriate, permitted disposal facility as determined by a lead specialist retained by the City of Newport Beach Public Works Department. The waste shall be contained/transported and properly disposed of in accordance with the Federal, State, and local laws and regulations.

c) ***Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

No Impact. There are no existing or proposed schools within one-quarter mile of the project site. The nearest school to the site is Harbor View Elementary School, located at 900 Goldenrod Avenue in Corona del Mar (approximately 1.10-mile east of the project site). Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

d) ***Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?***

No Impact. The *Phase I ISA* prepared for the proposed project included a Federal, State, and local regulatory agency database search for any potential hazardous properties within one-mile of the proposed project site. The database search results indicate that no regulatory property is located within the boundaries of the projects site. No known corrective action, restoration, or remediation has been planned, is currently taking place, or has been completed on the site. The project site has not been



under investigation for violation of any environmental laws, regulations, or standards. As such, no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

- e) ***For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?***

No Impact. The nearest airport to the project site is the John Wayne Airport, located approximately 4.20 miles to the north. In addition, the project site is located outside the boundaries of the Airport Environs Land Use Plan for John Wayne Airport. Therefore, no impact would occur.

Mitigation Measures: No mitigation is required.

- f) ***For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?***

No Impact. No private airstrips exist in the project vicinity. Thus, no impacts would occur.

Mitigation Measures: No mitigation is required.

- g) ***Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

Less Than Significant Impact. The proposed project would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. During construction activities, access to and from Balboa Island/Little Balboa Island would open remain at all times, via a temporary bridge structure along Balboa Avenue. During long-term operations, the proposed project would result in beneficial impacts related to emergency response/evacuation, as a new, wider, reinforced bridge structure would be constructed at same location as the existing Park Avenue Bridge. As such, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

- h) ***Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?***

No Impact. The proposed project site is located within an urbanized area, and no wildland areas exist in the project vicinity. Moreover, the proposed project would not include any habitable structures that would expose people to significant risk of loss, injury, or death involving wildland fires. No impacts would occur in this regard.

Mitigation Measures: No mitigation is required.



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4.9 HYDROLOGY AND WATER QUALITY

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?			✓	
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			✓	
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			✓	
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			✓	
e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?			✓	
f. Otherwise substantially degrade water quality?				✓
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				✓
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?			✓	
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			✓	
j. Inundation by seiche, tsunami, or mudflow?			✓	

a) *Violate any water quality standards or waste discharge requirements?*

Less Than Significant Impact.

Short-Term Impacts

The primary water quality concern related to the proposed project would be potential erosion impacts during construction activities. Grading and excavation activities associated with construction of the project would expose soils to potential short-term erosion by wind and water. Generally, construction activities within the City would be regulated under the National Pollutant Discharge Elimination System (NPDES) program, as administered by the Santa Ana Regional Water Quality Control Board (RWQCB). The RWQCB administers an NPDES Construction General Permit (CGP) for any construction project disturbing more than one acre of land. The project site is approximately 0.4-acre, and therefore would not be subject to the requirements of the NPDES CGP.



However, construction of the proposed project would be required to comply with water quality control measures included in Chapter 15.10, *Excavation and Grading Code*, of the City's *Municipal Code*. The *Excavation and Grading Code* includes measures to minimize water quality impacts related to erosion during the short-term construction process. Upon adherence to these requirements, impacts in this regard would be less than significant.

Long-Term Impacts

The proposed project would be required to implement a Water Quality Management Plan (WQMP) under the City of Newport Beach General Plan and Coastal Land Use Plan (CLUP) to minimize impacts related to long-term operational water quality. The project is located within the urban Municipal Separate Storm Sewer System (MS4) NPDES permitted area (NPDES Order R9-2009-0002) in Orange County. Drainage from the project drains to the Grand Canal in the Lower Newport Bay, which is a Section 303 impaired water body for Chlordane, Copper, Dichlorodiphenyltrichloroethane (DDT), Indicator Bacteria, Nutrients, Polychlorinated biphenyls (PCBs), Pesticides, and Sediment Toxicity. Total Maximum Daily Loads (TMDLs) have been developed for Selenium, Nutrients, Fecal Coliform Bacteria, Organochlorine Compounds (pesticides), and Sediment¹.

The proposed project represents replacement of an existing bridge between Balboa and Little Balboa Islands. The proposed bridge would not substantially alter drainage or water quality in comparison to existing conditions. As noted above, the City would require that a WQMP is prepared for the proposed project prior to the issuance of grading permits. The WQMP would identify applicable Best Management Practices (BMPs) that would ensure that water quality impacts are reduced to a less than significant level during long-term operations.

Mitigation Measures: No mitigation is required.

- b) ***Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?***

Less Than Significant Impact. The project would result in a nominal increase in impervious area in comparison to existing conditions, as the new bridge structure would be approximately six feet wider than the existing Park Avenue Bridge. However, groundwater percolation at the project site would not be affected by the proposed project, particularly since drainage from the proposed bridge would be directed to Grand Canal (similar to existing conditions). The project area is currently urbanized and developed and implementation of the proposed bridge would not result in a noticeable deficit in aquifer volume or a lowering of the groundwater table. The project would not involve or require the extraction of groundwater. As such, the project would not have the ability to substantially affect groundwater levels in the site vicinity, and impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.

- c) ***Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?***

¹ RBF Consulting, *Park Avenue Bridge Project Water Quality Technical Memorandum*, June 4, 2014 (refer to [Appendix F, Water Quality Technical Memorandum](#), of this document).



Less Than Significant Impact. The proposed project would result in the replacement of an existing bridge structure along Park Avenue between Balboa Island and Little Balboa Island. Drainage along the project site is currently achieved through sheet flow from the Park Avenue Bridge to drainage facilities on the east and west of the bridge structure, and ultimately draining into the Grand Canal. As the proposed project would result in the replacement of the existing Park Avenue Bridge structure with a new bridge, the existing drainage patterns would remain. Runoff from the project would be adequately conveyed to existing storm drain facilities, and the capacity of existing storm facilities would not be exceeded. In addition, as noted above in Response 4.9(a), the City would prepare a WQMP for the project that would include BMPs necessary to minimize long-term operational water quality impacts (including erosion and/or siltation).

It is possible that drainage patterns would be altered during short-term construction activities. However, as noted above, construction of the project would be required to comply with water quality control measures included in Chapter 15.10, *Excavation and Grading Code*, of the City's *Municipal Code*. The *Excavation and Grading Code* includes measures to minimize water quality impacts during the short-term construction process. Upon adherence to these requirements, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

- d) ***Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?***

Less Than Significant Impact. As stated in Response 4.9(c), the proposed project would not substantially alter the existing drainage patterns of the project site or in the surrounding area. The existing drainage facilities along Park Avenue would not be changed, and would convey drainage runoff into the Grand Canal. The capacity of existing storm facilities would not be exceeded.

While the project would implement improvements within and surrounding the Grand Canal, the project would not adversely affect the channel's flood protection capacity. The Grand Canal does not convey water. The normal water surface within the canal is determined by the tidal elevations within Newport Bay. The effect of the Park Avenue Bridge, bridge piers, and temporary/permanent piles do not displace sufficient volume to influence the water surface of Newport Bay and the Pacific Ocean. Removal of the existing bridge piers and construction of new piers and piles do not alter the canal's behavior under the influence of these nearby water bodies. As such, the project would not have the capacity to alter drainage patterns or increase the potential for flooding in the project area. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

- e) ***Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?***

Less Than Significant Impact. Refer to Responses 4.9(a), 4.9(c), and 4.9(d), above.

Mitigation Measures: No mitigation is required.



f) ***Otherwise substantially degrade water quality?***

No Impact. The proposed project is not anticipated to result in water quality impacts other than the potential short-term construction and long-term operational impacts identified above in Responses 4.9(a), 4.9(c), and 4.9(d). Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

g) ***Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?***

No Impact. According to the Federal Emergency Management Agency (FEMA), the project site is situated within Zone AE, which is within the 100-year flood hazard area.² However, no housing would be constructed as part of the proposed project. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

h) ***Place within a 100-year flood hazard area structures which would impede or redirect flood flows?***

Less Than Significant Impact. As noted above, the project site is located within a 100-year flood hazard area. The proposed project would include the placement of piers and piles on a temporary and permanent basis to allow for project implementation. As noted in Response 4.9(d), above, project implementation would not have the capacity to impede or redirect flood flows, since the normal water surface within the canal is determined by the tidal elevations within Newport Bay. The effect of the Park Avenue Bridge, bridge piers, and temporary/permanent piles do not displace sufficient volume to influence the water surface of Newport Bay and the Pacific Ocean.³ As such, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

i) ***Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?***

Less Than Significant Impact. As noted above, the proposed project site is located within a 100-year flood hazard area.⁴ However, as noted above in Responses 4.9(d), 4.9(g), and 4.9(h), none of the proposed improvements would expose people or structures to a significant risk related to flooding. An existing 12-inch thick seawall consisting of interlocking reinforced concrete sheet pile is located beneath the existing bridge and along the entire length of the Grand Canal. The project would rebuild the deteriorating seawalls under the proposed Park Avenue Bridge abutments as part of final design and construction. The existing seawalls would be replaced with a 60-foot length of secant pile wall with 24-inch diameter piles, and six inch concrete wall facing. All adjacent seawall areas would be protected-in-place. While the project would involve improvements to the existing seawall along the Grand Canal to allow for implementation of the Park Avenue Bridge, the improvements would not affect the canal's flood protection capacity. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

² Federal Emergency Management Agency, Flood Insurance Rate Map #06059C0382J, Panel 382 of 539, revised December 3, 2009.

³ RBF Consulting, *Location Hydraulic Study, Park Avenue Bridge Replacement Project*, July 21, 2014 (refer to [Appendix G, Location Hydraulic Study](#), of this document).



j) ***Inundation by seiche, tsunami, or mudflow?***

Less Than Significant Impact. A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, lake, or storage tank. A tsunami is a great sea wave, commonly referred to as a tidal wave, produced by a significant undersea disturbance such as tectonic displacement of a sea floor associated with large, shallow earthquakes. Mudflows result from the downslope movement of soil and/or rock under the influence of gravity.

Although the project site is located adjacent to Newport Bay, according to the City's *General Plan EIR*, the probability that damaging seiches would develop in Newport Bay is considered low. In addition, mudflow potential in the project area is considered low, as there are no topographical features capable of producing mudflow adjacent to the project site.

The City's *General Plan* Figure S1, Coastal Hazards, identifies the project site as located within a 100-year tsunami inundation at extreme high tide zone, with an identified inundation elevation of 13.64 feet. Although a potential tsunami hazard exists for the project area, the proposed project would not increase the potential for inundation in comparison to existing conditions. As noted above, the effect of the Park Avenue Bridge, bridge piers, and temporary/permanent piles do not displace sufficient volume to influence the water surface of Newport Bay and the Pacific Ocean, and the bridge improvements would not affect the canal's flood protection capacity. Rather, the project is anticipated to result in beneficial impacts related to safety during emergency events, as it would improve reliability of the bridge for emergency response and evacuation purposes in the event of tsunami or other flooding event. Thus, impacts in this regard are less than significant.

Mitigation Measures: No mitigation is required.



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4.10 LAND USE AND PLANNING

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an established community?				✓
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			✓	
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?				✓

a) *Physically divide an established community?*

No Impact. The proposed project would not result in impacts related to the division of an established community. The project site is located along an existing roadway (Park Avenue), and is comprised of a bridge structure within a developed urbanized area. Residential uses are located to the east and west of the project area. The proposed project would result in the demolition of the existing bridge structure, and construction of a seismically retrofitted bridge structure. As such, the proposed project would be similar to existing conditions, and would not divide an established community. Rather, the project would result in a beneficial impact in this regard since it would provide improved safety for pedestrians, bicyclists, and vehicle users on Balboa/Little Balboa Island.

Similarly, the project would not have the capacity to divide an existing community along Balboa Avenue at the temporary bridge site. Balboa Avenue is an existing roadway, and the project would implement a bridge crossing over Grand Canal while the permanent bridge at Park Avenue is constructed. This temporary bridge would not act as a barrier or divider, but rather would provide a new temporary point of connection between Balboa Island/Little Balboa Island that currently does not exist. Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

b) *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*

Less Than Significant Impact. As roadway facilities, Park Avenue and Balboa Avenue (location of the proposed temporary bridge structure) do not have land use designations under the City's *General Plan* and *Zoning Code*. However, areas surrounding the project site along Park Avenue, Marine Avenue, and Balboa Avenue are designated "Two-Unit Residential," "Public Facilities," and "Mixed-Use" by the *General Plan* and *Zoning Code*.

The proposed project would consist of the replacement of an existing bridge to improve its safety and reliability as the only roadway connecting Balboa/Little Balboa Islands. The new bridge would have the same vehicular capacity and would generally maintain the same architectural/visual characteristics. The new bridge would improve safety for all users (i.e., pedestrians, bicyclists, and motorists) of the site and surrounding area, and would not conflict with any City plan or policy.



The project may also implement a temporary bridge at Balboa Avenue to maintain connectivity between Balboa/Little Balboa Islands during construction of the permanent bridge. Although a bridge crossing at Balboa Avenue is not shown within the City's *Circulation Element*, this crossing would be temporary in nature (in place for approximately 10 months), and would maintain adequate access for residents in the project area and also for emergency vehicles/personnel. Since this bridge crossing would be a temporary improvement and would be removed upon completion of the permanent bridge at Park Avenue, it would not represent a conflict with an adopted land use plan, policy, or regulation.

In addition, the project would be required to comply with California Coastal Act (CCA) and the City's Coastal Land Use Plan. The City would be responsible for acquisition of a Coastal Development Permit (CDP) through the California Coastal Commission (CCC). As part of the CDP application process, the CCC would perform a detailed review of the proposed project in relation to the CCA, and identify any measures required to achieve consistency. As such, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

c) ***Conflict with any applicable habitat conservation plan or natural community conservation plan?***

No Impact. The proposed project is located within the Orange County Central/Coastal Natural Community Conservation Plan (NCCP).¹ However, as discussed within Responses 4.4(a) through 4.4(e), the proposed project would not result in significant impacts to biological resources, and would not result in conflicts with provisions of the NCCP. As such, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

¹ California Department of Fish and Wildlife, *HCP/NCCP California Regional Conservation Plans*, October 2013.



4.11 MINERAL RESOURCES

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				✓
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				✓

- a) ***Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?***

No Impact. The proposed project would involve the demolition of the existing Park Avenue Bridge, and construction of a new bridge structure connecting Balboa Island to Little Balboa Island. No mineral recovery activities currently occur in the project area, and the project site is not underlain by any known mineral resources of value to the region and residents of the state. Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

- b) ***Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?***

No Impact. Refer to Response 4.11(a), above.

Mitigation Measures: No mitigation is required.



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4.12 NOISE

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		✓		
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			✓	
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			✓	
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		✓		
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				✓
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				✓

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air, and is characterized by both its amplitude and frequency (or pitch). The human ear does not hear all frequencies equally. In particular, the ear deemphasizes low and very high frequencies. To better approximate the sensitivity of human hearing, the A-weighted decibel scale (dBA) has been developed. On this scale, the human range of hearing extends from approximately 3 dBA to around 140 dBA.

Noise is generally defined as unwanted or excessive sound, which can vary in intensity by over one million times within the range of human hearing; therefore, a logarithmic scale, known as the decibel scale (dB), is used to quantify sound intensity. Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks, and airplanes, and stationary sources such as construction sites, machinery, and industrial operations. Noise generated by mobile sources typically attenuates (is reduced) at a rate between 3 dBA and 4.5 dBA per doubling of distance. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of 3 dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance. Noise generated by stationary sources typically attenuates at a rate between 6 dBA and about 7.5 dBA per doubling of distance.

There are a number of metrics used to characterize community noise exposure, which fluctuate constantly over time. One such metric, the equivalent sound level (L_{eq}), represents a constant sound that, over the specified period, has the same sound energy as the time-varying sound. Noise exposure over a longer period of time is often evaluated based on the Day-Night Sound Level (L_{dn}). This is a measure of 24-hour noise levels that incorporates a 10-dBA penalty for sounds occurring between 10 p.m. and 7 a.m. The penalty is intended to reflect the increased human sensitivity to noises occurring during nighttime hours, particularly at times when people are sleeping and there are lower ambient noise conditions. Typical L_{dn} noise levels for light and medium density residential areas range from 55 dBA to 65 dBA.



Two of the primary factors that reduce levels of environmental sounds are increasing the distance between the sound source to the receiver and having intervening obstacles such as walls, buildings, or terrain features between the sound source and the receiver. Factors that act to increase the loudness of environmental sounds include moving the sound source closer to the receiver, sound enhancements caused by reflections, and focusing caused by various meteorological conditions.

STATE OF CALIFORNIA

The State Office of Planning and Research Noise Element Guidelines include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The Noise Element Guidelines contain a land use compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the Community Noise Equivalent Level (CNEL).

CITY OF NEWPORT BEACH

Chapter 10.26, Community Noise Control, of the City's *Municipal Code* contains all noise regulations implemented in the City; refer to Table 4.12-1, *City of Newport Beach Exterior Noise Standards*, and Table 4.12-2, *City of Newport Beach Interior Noise Standards*.

**Table 4.12-1
City of Newport Beach Exterior Noise Standards**

Zone	Allowable Exterior Noise Level (L _{eq}) ¹	
	7:00 a.m. to 10 p.m.	10 p.m. to 7 a.m.
1- Single-, two- or multiple-family residential properties	55 dBA	50 dBA
2- Commercial properties	65 dBA	60 dBA
3- Residential portions of mixed-use properties	60 dBA	50 dBA
4- Industrial or manufacturing	70 dBA	70 dBA

1. If the ambient noise level exceeds the resulting standards, the ambient shall be the standard.
Source: Chapter 10.26 (*Community Noise Control*) Section 10.26.025(A) of the *City of Newport Beach Municipal Code*, 2013.

**Table 4.12-2
City of Newport Beach Interior Noise Standards**

Zone	Allowable Interior Noise Level ¹	
	7:00 a.m. to 10 p.m.	10 p.m. to 7 a.m.
1- Residential	45 dBA	40 dBA
2- Residential portions of mixed-use properties	45 dBA	40 dBA

1. If the ambient noise level exceeds the resulting standards, the ambient shall be the standard.
Source: Chapter 10.26 (*Community Noise Control*) Section 10.26.030(A) of the *City of Newport Beach Municipal Code*, 2013.

The project would also be subject to the limitations imposed by the City regarding construction noise. The following outlines the City's construction noise ordinance:

- A. *Weekdays and Saturdays. No person shall, while engaged in construction, remodeling, digging, grading, demolition, painting, plastering or any other related building activity, operate any tool,*



- equipment or machine in a manner which produces loud noise that disturbs, or could disturb, a person of normal sensitivity who works or resides in the vicinity, on any weekday except between the hours of seven a.m. and six-thirty p.m., nor on any Saturday except between the hours of eight a.m. and six p.m.
- B. *Sundays and Holidays.* No person shall, while engaged in construction, remodeling, digging, grading, demolition, painting, plastering or any other related building activity, operate any tool, equipment or machine in a manner which produces loud noise that disturbs, or could disturb, a person of normal sensitivity who works or resides in the vicinity, on any Sunday or any federal holiday.
- C. *No landowner, construction company owner, contractor, subcontractor, or employer shall permit or allow any person or persons working under their direction and control to operate any tool, equipment or machine in violation of the provisions of this section.*

EXISTING STATIONARY SOURCES

The project area is highly urbanized, consisting of a mix of residential, commercial, office, and public facility uses. The primary sources of stationary noise in the project vicinity are urban-related activities (i.e., mechanical equipment, parking areas, and pedestrians). The noise associated with these sources may represent a single-event noise occurrence, short-term or long-term/continuous noise.

EXISTING MOBILE SOURCES

The majority of the existing mobile noise in the project area is generated from local traffic along the surrounding roadways (Park Avenue, Marine Avenue, Balboa Avenue, and small residential streets). The highest mobile noise levels currently occur along Marine Avenue, producing noise levels of approximately 57.6 dBA at a distance of 100 feet from the Park Avenue roadway centerline.¹

- a) ***Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

Less Than Significant Impact With Mitigation Incorporated. It is difficult to specify noise levels that are generally acceptable to everyone; what is annoying to one person may be unnoticed by another. Standards may be based on documented complaints in response to documented noise levels, or based on studies of the ability of people to sleep, talk, or work under various noise conditions. However, all such studies recognize that individual responses vary considerably. Standards usually address the needs of the majority of the general population.

Chapter 10.28, Loud and Unreasonable Noise, of the City's *Municipal Code* sets forth all noise regulations controlling unnecessary, excessive, and annoying noise within the City. As outlined in the *Municipal Code*, maximum noise levels are based on land use.

SHORT-TERM NOISE IMPACTS

Construction of the proposed project would occur over approximately 10 months. Construction activities would include demolition, grading, paving, and roadway/structural construction. Ground-borne noise and other types of construction-related noise impacts typically occur during the initial site

¹ Mobile source noise was modeled using the Federal Highway Administration's Highway Noise Prediction Model (FHWA RD-77-108), which incorporates several roadway and site parameters. The model does not account for ambient noise levels. Noise projections are based on modeled vehicular traffic as derived from the Park Avenue Bridge Replacement Traffic Analysis (Traffic Impact Analysis) prepared by RBF Consulting (May 15, 2014); refer to [Appendix H](#) of this document. A 25-mile per hour average vehicle speed was assumed for existing conditions based on empirical observations and posted maximum speeds.



preparation. This phase of construction has the potential to create the highest levels of noise; however, it is generally the shortest of all construction phases. Typical noise levels generated by construction equipment are shown in Table 4.12-3, Maximum Noise Levels Generated by Construction Equipment. Operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be due to random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts).

**Table 4.12-3
Maximum Noise Levels Generated by Construction Equipment**

Type of Equipment	Acoustical Use Factor ¹	L _{max} at 50 Feet (dBA)
Concrete Saw	20	90
Crane	16	81
Backhoe	40	78
Dozer	40	82
Excavator	40	81
Forklift	40	78
Tractor	40	84
General Industrial Equipment	50	85

Note:
1 – Acoustical Use Factor (percent): Estimates the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.
Source: Federal Highway Administration, *Roadway Construction Noise Model (FHWA-HEP-05-054)*, January 2006.

Sensitive uses surrounding the Park Avenue and Balboa Avenue sites include residential uses adjoining/surrounding each site. These sensitive uses may be exposed to elevated noise levels during project construction. The City's *Municipal Code* does not establish quantitative construction noise standards. Instead, Chapter 10.28 of the City's *Municipal Code* establishes allowable hours of 7:00 a.m. and 6:30 p.m. on weekdays, 8:00 a.m. and 6:00 p.m. on Saturdays, and at no time on Sundays or Federal holidays. Thus, construction activities would be conducted during allowable daytime hours, per the City's *Municipal Code*. In addition, given the proximity of construction activities to sensitive receptors, the project would not include any pile driving activities. Rather, the project would incorporate cast-in-drilled-hole (CIDH) and/or vibratory pile installation for implementation of bridge piles to minimize temporary noise impacts. Further, implementation of Mitigation Measure N-1 would ensure that noise generated during construction of the project would be lessened to the maximum extent possible. Mitigation Measure N-1 includes the designation of a "Noise Disturbance Coordinator," and orientation of stationary construction equipment away from nearby sensitive receivers, among other requirements. Impacts in this regard would be less than significant with implementation of Mitigation Measure N-1.

Refer to Response 4.12 (c) for a discussion of the proposed project's long-term operational noise impacts.

Mitigation Measures:

- N-1 Prior to issuance of any Grading Permit or Building Permit for new construction, the City of Newport Beach Public Works Department shall confirm that the Grading Plan, Building Plans, and specifications stipulate that:



- All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other State required noise attenuation devices.
- The City shall provide a qualified "Noise Disturbance Coordinator." The Disturbance Coordinator shall be responsible for responding to any local complaints about construction noise. When a complaint is received, the Disturbance Coordinator shall notify the City within 24-hours of the complaint and determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall implement reasonable measures to resolve the complaint, as deemed acceptable by the Community Development Department. The contact name and the telephone number for the Disturbance Coordinator shall be clearly posted on-site.
- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.
- Construction activities that produce noise shall not take place outside of the allowable hours specified by the City's *Municipal Code Section 10.28.040* (7:00 a.m. and 6:30 p.m. on weekdays, 8:00 a.m. and 6:00 p.m. on Saturdays; construction is prohibited on Sundays and/or federal holidays).

b) *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

Less Than Significant Impact. Project construction can generate varying degrees of ground-borne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Ground-borne vibrations from construction activities rarely reach levels that damage structures.

The Federal Transit Administration (FTA) has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.20 inch/second) appears to be conservative. The types of construction vibration impact include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Typical vibration produced by construction equipment is illustrated in Table 4.12-4, Typical Vibration Levels for Construction Equipment.

Ground-borne vibration decreases rapidly with distance. The proposed project would not require pile driving. As indicated in Table 4.12-4, based on the FTA data, vibration velocities from typical heavy construction equipment operations that would be used during project construction range from 0.003 to 0.076 inch-per-second peak particle velocity (PPV) at 25 feet from the source of activity. The nearest sensitive receptors (residential surrounding the project site) are located approximately 15 feet from the project boundary at both the Park Avenue and Balboa Avenue sites. As noted in Table 4.12-4, vibration at 15 feet would range from 0.075 to 0.191 PPV. Therefore, vibration from construction activities experienced at the nearest sensitive receptors) would be below the 0.20 inch-per-second PPV significance threshold. In addition, as noted above, the project would incorporate cast-in-drilled-hole (CIDH) and/or vibratory pile installation for implementation of bridge piles rather than pile driving to



minimize temporary noise/vibration impacts. Thus, a less than significant impact would occur in this regard.

Mitigation Measures: No mitigation is required.

**Table 4.12-4
Typical Vibration Levels for Construction Equipment**

Equipment	Approximate peak particle velocity at 25 feet (inches/second) ¹	Approximate peak particle velocity at 15 feet (inches/second) ²
Large bulldozer	0.089	0.191
Loaded trucks	0.076	0.164
Small bulldozer	0.003	0.006
Jackhammer	0.035	0.075

Notes:

1. Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Guidelines*, May 2006. Table 12-2.
2. Calculated using the following formula:

$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$$
 where: PPV (equip) = the peak particle velocity in in/sec of the equipment adjusted for the distance
 PPV (ref) = the reference vibration level in in/sec from Table 12-2 of the FTA *Transit Noise and Vibration Impact Assessment Guidelines*
 D = the distance from the equipment to the receiver

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. An off-site traffic noise impact occurs when there is a discernable increase in traffic noise and the resulting noise level exceeds an established noise standard. The proposed project consists of the replacing the existing Park Avenue Bridge with a new bridge structure at the same location. The project would not result in an increase in vehicular capacity of the bridge, nor would it substantially alter the profile or alignment. As such, the project would not generate any operational mobile traffic trips and increased mobile traffic noise levels, and/or introduce any new stationary noise sources to the project area. Noise levels would be similar to existing conditions upon completion of the new bridge Park Avenue Bridge structure. As such, a less than significant impact would occur in this regard.

Mitigation Measures: No mitigation is required.

d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above the levels existing without the project?

Less Than Significant With Mitigation Incorporated. Refer to Responses 4.12(a) and 4.12(c), above. While the project may include a minor increase in noise levels during construction and operation of the temporary bridge site along Balboa Avenue, any such increase would be short-term in nature and all impacts would cease once the Park Avenue Bridge replacement is complete. Impacts in this regard would be less than significant with implementation of Mitigation Measure N-1.

Mitigation Measures: Refer to Mitigation Measure N-1.



- e) ***For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?***

No Impact. There are no private or public airports or airstrips within two miles of the project site. In addition, the project site is not located within the boundaries of the Airport Environs Land Use Plan for John Wayne Airport. No impact would occur.

Mitigation Measures: No mitigation is required.

- f) ***For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?***

No Impact. Refer to Response 4.12(e).

Mitigation Measures: No mitigation is required.



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4.13 POPULATION AND HOUSING

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				✓
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				✓
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				✓

- a) ***Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?***

No Impact. The proposed project would not involve the construction of any homes, businesses, or other uses that would result in direct population growth.

The project consists of the demolition of the existing Park Avenue Bridge, and the construction of a new bridge structure at the same location. While this would improve safety and traffic efficiency in the project area, it is not expected to induce population growth because: 1) the project area is urbanized and generally built-out; 2) the project would not increase the vehicular capacity of the Park Avenue Bridge; and 3) the project would not represent the removal of a barrier to growth, since roadway facilities exist throughout the project area. As such, impacts in regards to growth inducement would be less than significant.

Mitigation Measures: No mitigation is required.

- b) ***Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?***

No Impact. No housing would be affected by the proposed project, and no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

- c) ***Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?***

No Impact. No people would be displaced by the proposed project, and no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.



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4.14 PUBLIC SERVICES

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
1) Fire protection?			✓	
2) Police protection?			✓	
3) Schools?				✓
4) Parks?				✓
5) Other public facilities?				✓

a) ***Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:***

1) Fire protection?

Less Than Significant Impact. The City of Newport Beach Fire Department provides fire protection within the City. The nearest station to the project site is Station #4, located 124 Marine Avenue, approximately 100 feet to the west of the Park Avenue Bridge site and 500 feet southwest of the Balboa Avenue site. As a roadway bridge project, the proposed facility would not substantially increase the need for fire protection services. No habitable structures are proposed. Moreover, since the project would be designed to accommodate all City of Newport Beach Fire Department emergency response vehicles and would be wider than the existing bridge structure, the project would result in beneficial impacts related to emergency response and roadway connectivity in the project area.

Currently, the Park Avenue Bridge provides emergency vehicle access to Balboa Island and Little Balboa Island. During construction of the proposed project, access to both Balboa Island and Little Balboa Island would be maintained at all times, via a temporary construction bridge along Balboa Avenue. As such, fire response capability would be maintained at all times, and impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

2) Police protection?

Less Than Significant Impact. The Newport Beach Police Department provides police protection within the City. The Newport Beach Police Department is based at 870 Santa Barbara Drive, approximately 1.30-mile north of the Park Avenue and Balboa Avenue sites. As a roadway bridge facility, the proposed facility would not substantially increase the need for police protection services. No habitable structures are proposed. As noted above, the proposed bridge structure would result in a



beneficial impacts related to emergency response, as the bridge would be wider and provide increased safety for pedestrians, bicyclists, and motorists in the project area.

Currently, the Park Avenue Bridge provides emergency vehicle access to Balboa Island and Little Balboa Island. During construction of the proposed project, access to both Balboa Island and Little Balboa Island would be maintained at all times, via a temporary construction bridge along Balboa Avenue. As such, police response capability would be maintained at all times, and impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

3) Schools?

No Impact. The proposed project would not directly result in any student generation, as no homes are proposed. Moreover, as discussed in Response 4.13(a), the project would not directly or indirectly induce substantial population growth in the project area. Thus, no impacts are anticipated in this regard.

Mitigation Measures: No mitigation is required.

4) Parks?

No Impact. As a roadway bridge facility, the project would not generate the need for new or physically altered park facilities. No habitable structures are proposed as part of the project. Moreover, as discussed in Response 4.13(a), the project would not directly or indirectly induce substantial population growth in the project area. Thus, no impacts are anticipated in this regard.

Mitigation Measures: No mitigation is required.

5) Other public facilities?

No Impact. As shown above in Responses 4.14(a)(1) through 4.14(a)(4), the proposed project would not result in significant impacts on public services or facilities. No other public facilities are anticipated to be affected by the project. No impacts would occur in this regard.

Mitigation Measures: No mitigation is required.



4.15 RECREATION

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				✓
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			✓	

- a) ***Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?***

No Impact. As stated in Response 4.14(a)(4), the proposed project would not result in an increase in demand on parks or other recreational facilities, and would not result in physical deterioration of these facilities. No impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

- b) ***Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?***

Less Than Significant Impact. As stated in Response 4.14(a)(4), the proposed project would not result in an increase in demand on parks or other recreational facilities. During construction activities, access between Balboa/Little Balboa Islands would remain open at all times for vehicles, bicyclists, and pedestrians via a temporary bridge along Balboa Avenue.

Access along the Grand Canal for recreational users may be temporarily affected during the short-term construction process. Although the majority of the canal would remain open and accessible for recreational use, there would be periods when portions of the canal (i.e., the Park Avenue and/or Balboa Avenue sites) would need to be closed to maintain public safety. The Park Avenue Bridge site would require closure during periods when canal users would be subject to hazards (e.g., falling debris during demolition, open construction areas related to piers, bridge installation activities, etc.). Closure of the Balboa Avenue site would be limited to the brief periods when the bridge is launched/installed and removed. Upon completion of construction, the new Park Avenue Bridge would match the existing vertical curve profile and existing freeboard of the existing bridge, and recreational use would be unaffected. As such, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.



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4.16 TRANSPORTATION/TRAFFIC

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			✓	
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				✓
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				✓
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			✓	
e. Result in inadequate emergency access?			✓	
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			✓	

- a) ***Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?***

Less Than Significant Impact.

BACKGROUND

This section is based upon the *Park Avenue Bridge Replacement Traffic Analysis* (RBF Consulting, May 15, 2014) prepared for the proposed project; refer to Appendix H, Traffic Analysis, of this document. The purpose of the *Traffic Analysis* is to evaluate potential project impacts related to traffic and circulation in the vicinity of the project site. Since the project would include a temporary bridge at Balboa Avenue while the Park Avenue Bridge is demolished and reconstructed, the Traffic Analysis analyzes temporary impacts along Balboa Avenue and surrounding roadways and intersections; operational traffic impact analysis is not considered, as the project would not generate any trips after construction is complete.



Environmental Setting

To evaluate the potential traffic impacts of the proposed project, identification of a range of local study intersections and roadways was coordinated with the City of Newport Beach.

Local Intersections

1. Marine Avenue/Balboa Avenue
2. Marine Avenue/Park Avenue
3. Abalone Avenue/Balboa Avenue; and
4. Abalone Avenue/Park Avenue

Analysis Methodology

Intersection Analysis

Level of service (LOS) is commonly used as a qualitative description of intersection operation and is based on the capacity of the intersection and the volume of traffic using the intersection. The *Intersection Capacity Utilization* (ICU) analysis method is typically utilized by the City of Newport Beach to determine the operating LOS of signalized intersections; however, the ICU analysis methodology is not applicable to unsignalized intersections. Therefore, the *Highway Capacity Manual* (HCM) analysis methodology has been utilized to determine the operating LOS of the study intersections for this study.

The analysis of proposed temporary signalized intersections associated with temporary bridge conditions has also been prepared utilizing the HCM analysis methodology so the particular signal operations can be modeled more accurately. Unlike the HCM analysis methodology, the ICU analysis methodology does not account for various factors that would affect the study intersection LOS such as traffic signal timing (extended all-red clearance intervals in particular), phasing, cycle length, and distance between intersections.

The 2000 HCM analysis methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding ranges of stopped delay experienced per vehicle for signalized and unsignalized intersections shown in Table 4.16-1, LOS and Delay Ranges.

**Table 4.16-1
LOS and Delay Ranges**

Unsignalized Intersections	
VC Ratio	LOS
≤ 10.0	A
10.0 to ≤ 15.0	B
20.0 to ≤ 35.0	C
35.0 to ≤ 55.0	D
55.0 to ≤ 80.0	E
> 80.0	F
Source: RBF Consulting, <i>Park Avenue Bridge Replacement Traffic Analysis</i> , May 15, 2014; refer to Appendix H.	



Performance Criteria

- **Intersection Performance Criteria:** The City's goal for peak hour intersection operation is LOS D or better.

Thresholds of Significance

Intersection Thresholds of Significance

The City of Newport Beach has no thresholds of significance for unsignalized intersections. Therefore, this analysis documents the delay/LOS, displaced parking, and vehicle queuing for existing conditions and the two alternative reconstruction conditions.

EXISTING CONDITIONS

Local Intersections and Roadways

Existing Roadway System

The characteristics of the roadway system in the vicinity of the project site are described below:

- **Marine Avenue** is a two-lane undivided roadway trending in a north-south direction. There is no posted speed limit on Marine Avenue within the project vicinity; on-street parking is permitted.
- **Abalone Avenue** is a one-way southbound undivided roadway. There is no posted speed limit on Abalone Avenue within the project vicinity; on-street parking is permitted.
- **Balboa Avenue** is a two-lane undivided roadway trending in an east-west direction. Balboa Avenue is bisected by the Grand Canal water channel which runs north-south. There is no posted speed limit on Balboa Avenue within the project vicinity; on-street parking is permitted.
- **Park Avenue** is a two-lane roadway with intermittent raised medians trending in an east-west direction. The Park Avenue Bridge spans the Grand Canal water channel. There is no posted speed limit on Park Avenue within the project vicinity; on-street parking is generally permitted with the exception of on the Park Avenue Bridge.

Existing Traffic Conditions

To determine the existing operation of the study intersections, a.m. peak hour and p.m. peak hour intersection movement counts were collected in April 2014 during typical weekday conditions. The a.m. peak period intersection counts were collected from 7:00 a.m. to 9:00 a.m.; the p.m. peak period intersection counts were collected from 4:00 p.m. to 6:00 p.m. The traffic volumes used in this analysis were taken from the highest hour within the two-hour peak period counted. Additionally, daily traffic volumes for the roadway circulation system were also collected in April 2014. Detailed traffic count data sheets are contained in Appendix H.

Existing Conditions Peak Hour Study Intersection LOS

Table 4.16-2, Existing Conditions Study Intersections AM & PM Peak Hour LOS summarizes existing conditions a.m. peak hour and p.m. peak hour LOS of the study intersections.



Table 4.16-2
Existing Conditions Study Intersections AM & PM Peak Hour LOS

Study Intersection	AM Peak Hour	PM Peak Hour
	Delay – LOS	Delay – LOS
01-Marine Avenue/Balboa Avenue	12.3 – B	11.7 – B
02-Marine Avenue/Park Avenue	9.0 – A	9.4 – A
03-Abalone Avenue/Balboa Avenue	9.7 – A	9.3 – A
04-Abalone Avenue/Park Avenue	7.2 – A	7.2 – A

Source: RBF Consulting, *Park Avenue Bridge Replacement Traffic Analysis*, May 15, 2014; refer to Appendix H.

As shown in Table 4.16-2, the study intersections are currently operating at an acceptable LOS (LOS D or better) according to City performance criteria.

TEMPORARY BRIDGE CONSTRUCTION CONDITIONS

As noted above, the project would include the operation of a temporary bridge structure along Balboa Avenue, between Balboa Island and Little Balboa Island during demolition and construction of the new Park Avenue Bridge structure. Under this scenario, the trips currently traversing the Park Avenue Bridge would be redistributed to the temporary Balboa Avenue bridge connection since there would be no traffic connection at the Park Avenue location during demolition and construction activities.

Table 4.16-3, Temporary Bridge Conditions AM & PM Peak Hour LOS, summarizes the a.m. and p.m. peak hour LOS of the study intersections with implementation of the temporary bridge along Balboa Avenue during construction activities.

Table 4.16-3
Temporary Bridge Conditions AM & PM Peak Hour LOS

Study Intersection	Existing Conditions		Temporary Bridge Conditions		Change in Delay	
	Delay – LOS		Delay – LOS		AM Peak Hour	PM Peak Hour
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour		
01-Marine Avenue/Balboa Avenue	12.3 – B	11.7 – B	12.2 – B	12.0 – B	-0.1	+0.3
02-Marine Avenue/Park Avenue	9.0 – A	9.4 – A	8.4 – A	8.4 – A	-0.6	-1.0
03-Abalone Avenue/Balboa Avenue	9.7 – A	9.3 – A	9.3 – A	8.9 – A	-0.4	-0.4
04-Abalone Avenue/Park Avenue	7.2 – A	7.2 – A	7.4 – A	7.5 – A	+0.2	+0.3

Source: RBF Consulting, *Park Avenue Bridge Replacement Traffic Analysis*, May 15, 2014; refer to Appendix H.

As seen in Table 4.16-3, the study intersections would continue to operate at an acceptable LOS (LOS D or better) during operation of the temporary bridge along Balboa Avenue, according to the City of Newport Beach performance criteria. It should be noted that the LOS for the AM peak hour at Marine Avenue/Balboa Avenue is shown as slightly decreasing from 12.3 (LOS B) under existing conditions to 12.2 (LOS B) under temporary bridge conditions. While one may expect the LOS to increase due to the temporary bridge, the LOS actually decreases since the LOS is based upon average delay for all



movements at the intersection. The primary existing movement at the Marine Avenue/Balboa Avenue intersection is the north-south through movement. Since the temporary bridge would attract additional east-west turning movements onto Balboa Avenue, this would reduce north-south through movements and slightly reduce the overall average delay at the intersection.

CONCLUSION

As demonstrated in the analysis above, all of the study intersections would operate at an acceptable LOS during operation of the temporary bridge over the Grand Canal at Balboa Avenue. As such, short-term construction impacts in this regard would be less than significant. As noted above, the project would not generate vehicle trips or have the capacity to alter traffic conditions along Park Avenue upon completion of new bridge structure. Long-term operational traffic impacts would not occur.

Mitigation Measures: No mitigation is required.

- b) ***Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?***

No Impact. Based on the Orange County Transportation Authority's (OCTA) Congestion Management Program (CMP), there are no designated CMP roadways that would be affected by the proposed project. The nearest CMP roadway is East Coast Highway (State Route 1), which is located approximately 0.5-mile to the north. No impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

- c) ***Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?***

No Impact. The nearest airport to the project site is the John Wayne Airport, located approximately four miles to the north. The proposed project would not have the capacity to result in a change in air traffic patterns. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

- d) ***Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?***

Less Than Significant Impact. The proposed project would result in the replacement of the Park Avenue Bridge with a new bridge structure, connecting Balboa Island to Little Balboa Island. During the short-term construction process, a temporary two-lane bridge would be installed at Balboa Avenue over the Grand Canal. This temporary bridge would operate in a similar capacity to the existing Park Avenue Bridge, and the bridge design would be subject to City review during the final plan review process to ensure public safety. In addition, the temporary bridge would incorporate a five-foot wide pathway for bicycle and pedestrian use that would be separated from vehicle travel lanes.

Upon completion of construction of the new Park Avenue Bridge, the project would result in beneficial impacts in regards to hazards. The project would result in an improved, seismically-reinforced bridge over the Grand Canal. Vehicle, bicyclist, and pedestrian travel on the new bridge would be similar to what currently occurs on the existing bridge. Moreover, project design would comply with applicable State (i.e., Caltrans) and local design requirements for bridge facilities, ensuring that hazards to travelers are minimized. Impacts in this regard would be less than significant.



Mitigation Measures: No mitigation is required.

e) ***Result in inadequate emergency access?***

Less Than Significant Impact. Currently, the Park Avenue Bridge provides emergency vehicle access to Balboa Island and Little Balboa Island. During construction of the proposed project, access to both Balboa Island and Little Balboa Island would be maintained at all times, via a temporary bridge along Balboa Avenue. As such, impacts in this regard would be less than significant.

Long-term operation of the proposed project would not impair or interfere with emergency access. The proposed project would result in beneficial impacts related to emergency access, since it would improve connectivity and circulation in the project area by providing a wider bridge structure connecting Balboa Island to Little Balboa Island. As such, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

f) ***Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?***

Less Than Significant Impact. The proposed project would involve the replacement of the existing Park Avenue Bridge with a new bridge structure, connecting Balboa Island to Little Balboa Island. Generally, the proposed project would result in beneficial impacts to transportation efficiency and connectivity in the project area. The project would include 11-foot wide vehicle lanes, and six-foot wide sidewalks on the bridge structure. Overall, the new bridge structure would be six feet wider than the existing Park Avenue Bridge. In addition, the temporary bridge would accommodate continuous access between Balboa/Little Balboa Islands for pedestrian, bicycle, and vehicle use during construction of the proposed project. As such, the proposed project would not conflict with any policies, plans, or programs related to public or alternative transportation. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.



4.17 UTILITIES AND SERVICE SYSTEMS

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				✓
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				✓
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			✓	
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			✓	
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			✓	
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			✓	
g. Comply with federal, state, and local statutes and regulations related to solid waste?				✓

a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

No Impact. The proposed project would result in the demolition of the existing Park Avenue Bridge, and construction of a new bridge structure in the same location. The project would not include the use of any habitable structures, and would not have the capability to produce wastewater. As such, no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

No Impact. The proposed project would result in the demolition of the existing Park Avenue Bridge, and construction of a new bridge structure in the same location. The project would not include the use of any habitable structures, and would not have the capability to consume water or produce wastewater. As such, no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.



- c) **Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

Less Than Significant Impact. The proposed project would include the temporary relocation of existing utilities (i.e., water, gas, electrical, telecommunication) within the existing Park Avenue Bridge structure to allow for continued utility service throughout the duration of the construction process. Upon completion of the proposed project, all utility lines would be placed within the new bridge structure, and would be similar to existing conditions. As discussed within Response 4.9(c), the construction of new stormwater facilities would not result in any significant impacts, and existing facilities along Park Avenue are adequate to accommodate the project. As such, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

- d) **Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**

Less Than Significant Impact. Refer to Response 4.17(b), above.

Mitigation Measures: No mitigation is required.

- e) **Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

Less Than Significant Impact. Refer to Responses 4.17(a) and 4.17(b), above.

Mitigation Measures: No mitigation is required.

- f) **Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?**

Less Than Significant Impact. The proposed project would result in the demolition of the existing Park Avenue Bridge, and construction of a new bridge structure in the same location. The project would not include the construction of any habitable structures, and would not have the capability to produce solid waste. Although the project may require the disposal of debris during the demolition process (concrete, soil, etc.), the generation of these materials should be short-term in nature and would not have the capability to substantially affect the capacity of regional landfills. Thus, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

- g) **Comply with federal, state, and local statutes and regulations related to solid waste?**

No Impact. The proposed project would comply with all Federal, State, and local statutes and regulations related to solid waste, including the U.S. Environmental Protection Agency's Resource Conservation and Recovery Act (RCRA), which provides the federal government with "cradle to grave" authority over the disposal of solid waste and hazardous materials. The project would also be required to comply with Assembly Bills 939 and 1327, which require measures to enhance recycling and source reduction. Thus, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.



4.18 MANDATORY FINDINGS OF SIGNIFICANCE

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		✓		
b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?		✓		
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		✓		

- a) ***Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?***

Less Than Significant Impact With Mitigation Incorporated. As noted in Section 4.4, *Biological Resources*, the only sensitive biological resources associated with the project site is eelgrass that occurs within the Grand Canal, nesting birds that may occur in the project area, and jurisdictional waters. Mitigation Measures BIO-1 through BIO-4 would be implemented to minimize impacts in this regard to a level below significance. In addition, while no sensitive cultural resources are known to exist within site boundaries, Mitigation Measures CUL-1 and CUL-2 would be implemented in the event such resources are discovered during ground-disturbing activities. Therefore, the Project does not have the potential to significantly degrade the overall quality of the region’s environment, or substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population or drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

- b) ***Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?***

Less Than Significant Impact With Mitigation Incorporated. The proposed project would not result in the construction of any new housing or other uses that would directly result in population growth. There would be no impact that would be individually limited, but cumulatively considerable for the environmental issues analyzed within this Initial Study. As indicated throughout Section 4.0,



Environmental Analysis, impacts as a result of the proposed project would be less than significant with implementation of recommended mitigation measures. Therefore, the proposed project would result in less than significant impacts in this regard.

- c) ***Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?***

Less Than Significant Impact With Mitigation Incorporated. Previous sections of this Initial Study reviewed the proposed project's potential impacts related to aesthetics, air quality, geology and soils, greenhouse gases, hydrology/water quality, noise, hazards and hazardous materials, traffic, and other issues. As concluded in these previous discussions, the proposed project would result in less than significant environmental impacts with implementation of the recommended mitigation measures. Therefore, the proposed project would not result in environmental impacts that would cause substantial adverse effects on human beings.



4.19 REFERENCES

The following references were utilized during preparation of this Initial Study/Environmental Checklist. These documents are available for review at the City of Newport Beach Community Development Department located at 100 Civic Center Drive, Newport Beach, CA 92660.

1. Airport Land Use Commission for Orange County, *AELUP Height Restriction Zone for JWA*, January 8, 2004.
2. California Air Resources Board, *Climate Change Proposed Scoping Plan*, October 2008.
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6. California Department of Conservation, *Seismic Hazards Zone Map*, <http://www.conservation.ca.gov/cgs/shzp/Pages/Index.aspx>, accessed June 9, 2014.
7. California Department of Transportation, *California Scenic Highway Mapping System*, http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm, accessed June 2014.
8. California Department of Transportation, *Historic Property Survey Report*, August 2014.
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10. California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013.
11. California Emissions Estimator Model, Version 2013.2.2.
12. California Energy Commission, *California Greenhouse Gas Inventory for 2000-2012*, May 2014.
13. California Fish and Wildlife Service, *HCP/NCCP California Regional Conservation Plans*, October 2013.
14. California State Office of Planning and Research, *Noise Element Guidelines*, October 2003.
15. City of Newport Beach, *City of Newport Beach General Plan*, July 2006.
16. City of Newport Beach, *City of Newport Beach General Plan Environmental Impact Report*, April 2006.
17. City of Newport Beach, *City of Newport Beach Municipal Code*, current through Ordinance 2014-11, passed on June 24, 2014.



18. City of Newport Beach, *Emergency Operations Plan*, Approved on September 27, 2011.
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21. County of Orange, *Drainage Area Management Plan*, 2003.
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23. Federal Emergency Management Agency, Flood Insurance Rate Map #06059C0382J, revised December 3, 2009.
24. Federal Highway Administration, *Roadway Construction Noise Model (FHWA-HEP-05-054)*, January 2006.
25. Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Guidelines*, May 2006.
26. Google Earth, 2014.
27. Governor's Office of Planning and Research, *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*, 2008.
28. RBF Consulting, *Location Hydraulic Study, Park Avenue Bridge Replacement Project*, July 21, 2014.
29. RBF Consulting, *Natural Environment Study, Habitat Assessment, including the results of a Jurisdictional Delineation Park Avenue Bridge over the Grand Canal*, June 2014.
30. RBF Consulting, *Park Avenue Bridge Project Water Quality Technical Memorandum*, June 4, 2014.
31. RBF Consulting, *Park Avenue Bridge Replacement Traffic Analysis*, May 15, 2014.
32. RBF Consulting, *Phase I Initial Site Assessment, Park Avenue Bridge Replacement Project*, July 2014.
33. RBF Consulting, *Visual Impact Assessment, Park Avenue Bridge Replacement Project*, May 13, 2014.
34. Southern California Association of Governments, *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy*, April 4, 2012.
35. Southern California Earthquake Center website, <http://www.scec.org/>, accessed June 9, 2014.
36. South Coast Air Quality Management District, *2012 Air Quality Management Plan*, 2012.
37. South Coast Air Quality Management District, *CEQA Air Quality Handbook*, November 1993.



38. South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology, Appendix C*, June 2003 (revised 2009).
39. State of California, California Regional Water Quality Control Board, Santa Ana Region, ORDER NO. R8-2009-0030, NPDES No. CAS618030.
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4.20 REPORT PREPARATION PERSONNEL

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5.0 INVENTORY OF MITIGATION MEASURES

Aesthetics

- AES-1 Prior to final plan approval, the City of Newport Beach Public Works Department shall ensure that project specifications require that all construction and construction staging areas are sited and/or screened with temporary fencing in order to minimize impacts to public views to the maximum extent feasible. The fencing shall be comprised of opaque material to shield views from surrounding sensitive viewers. In addition, equipment/materials storage and any vehicle parking shall be sited such that their visibility from adjacent receptors is reduced to the greatest extent feasible.
- AES-2 For any nighttime lighting required for the project, the City of Newport Beach Public Works Department shall ensure that the contract documents require the construction contractor and/or bridge contractor to use the minimum amount and intensity of lighting required for safety purposes. The lighting shall be shielded and directed towards the specific area of construction, and away from surrounding sensitive uses to the extent practicable.

Air Quality

- AQ-1 Prior to issuance of any Grading Permit, the City shall confirm that the Grading Plan, Building Plans, and specifications stipulate that, in compliance with SCAQMD Rule 403, excessive fugitive dust emissions shall be controlled by regular watering or other dust prevention measures, as specified in the SCAQMD's Rules and Regulations. In addition, SCAQMD Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. Implementation of the following measures (among others required by Rules 402 and 403) would reduce short-term fugitive dust impacts on nearby sensitive receptors:
- All active portions of the construction site shall be watered every three hours during daily construction activities and when dust is observed migrating from the project site to prevent excessive amounts of dust;
 - Pave or apply water every three hours during daily construction activities or apply non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas. More frequent watering shall occur if dust is observed migrating from the site during site disturbance;
 - Any on-site stockpiles of debris, dirt, or other dusty material shall be enclosed, covered, or watered twice daily, or non-toxic soil binders shall be applied;
 - All grading and excavation operations shall be suspended when wind speeds exceed 25 miles per hour;
 - Disturbed areas shall be replaced with ground cover or paved immediately after construction is completed in the affected area;
 - Visible dust beyond the property line which emanates from the project shall be prevented to the maximum extent feasible;



- All material transported off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust prior to departing the job site; and
- Reroute construction trucks away from congested streets or sensitive receptor areas.

Biological Resources

BIO-1 Prior to project implementation, the City of Newport Beach shall thoroughly map the area, distribution, density and relationship to depth contours of any eelgrass beds that have the potential to be directly or indirectly impacted by project construction. Factors to be considered in delineating potential habitat areas include appropriate circulation, light, sediment, slope, salinity, temperature, dissolved oxygen, depth, proximity to eelgrass, history of eelgrass coverage, etc. All mapping efforts should be completed during the active growth phase for the vegetation (generally March through October) and shall be valid for a period of 60 days with the exception of surveys completed in August - October. Surveys completed in August - October shall be valid until the resumption of active growth (i.e., in most instances, March 1).

After project construction, the City of Newport Beach shall conduct a post-project survey within 30 days and the results shall be sent to the resource agencies. The actual area of impact shall be determined from the post-project survey. An additional survey shall be completed after 12 months to ensure that the project or impacts attributable to the project have not exceeded the allowed limits. If the post-project or 12 month survey demonstrates a loss of eelgrass greater than the allowed limit, then mitigation pursuant to Sections 1-11 of the Southern California Eelgrass Mitigation Policy shall be required.

BIO-2 The City of Newport Beach shall ensure that compensatory mitigation is provided in accordance with the Southern California Eelgrass Mitigation Policy (NMFS, 1991 as amended, Revision 11) for temporary impacts to eelgrass. Such mitigation may include planting eelgrass within the temporarily affected area and throughout the Grand Canal to offset impacts to eelgrass and increase the amount of eelgrass within the Grand Canal. The City of Newport Beach shall develop the compensatory mitigation program in consultation with the resource agencies prior to any construction activities that have the capacity to result in adverse impacts to eelgrass. Per the Southern California Eelgrass Mitigation Policy, the ultimate mitigation ratio shall be dependent on the results of the pre- and post-construction eelgrass surveys, but shall be no less than a 1:1 mitigation ratio unless otherwise agreed upon by the resource agencies.

BIO-3 If construction occurs between February 1st and August 31st, the follow shall be implemented:

- A pre-construction survey shall be conducted prior to construction activities to determine the presence or absence of nesting birds within the BSA. A qualified biologist shall conduct the survey.
- If an active nest is found, the bird shall be identified to species and the approximate distance from the closest work site to the nest is estimated. No additional measures need to be implemented if active nests are more than the following distances from the nearest work site: a) 500 feet for raptors or listed species; or b) 250 feet for non-listed passerines. Nests within these distances from the project site shall have a no-disturbance buffer implemented around them. The buffer shall be a minimum 250 feet for non-listed passerines and a minimum 500 feet for raptors or listed species. This



distance may be increased according to the judgment of the qualified biologist, and may be decreased only with approval from the CDFW.

- A qualified biologist shall periodically monitor any confirmed nest sites (with no-disturbance buffers) during construction to determine if grading activities occurring outside the buffer zone disturb the birds and if the buffer zone should be increased to prevent nest abandonment. The nest trees shall be monitored until all nests have been abandoned (for non-project related reasons) or the young have fledged. If no nesting birds are found on-site during this time period, construction activities may continue as planned.

BIO-4 Prior to any construction activity within the Grand Canal, the City of Newport Beach shall consult with the appropriate responsible resource agency (i.e., U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Coastal Commission) to verify delineation results, determine permanent losses and temporary impact areas, and identify compensatory mitigation, as applicable. Prior to undertaking ground-disturbing activities on or immediately adjacent to any aquatic resource areas, the City of Newport Beach and/or their consultant shall obtain all obligatory discretionary permits/authorizations.

Cultural Resources

CUL-1 If evidence of subsurface archaeological resources is found during construction, excavation and other construction activity in that area shall cease and the construction contractor shall contact the City of Newport Beach Community Development Director. With direction from the Community Development Director, an archaeologist certified by the County of Orange shall be retained to evaluate the discovery prior to resuming grading in the immediate vicinity of the find. If warranted, the archaeologist shall collect the resource and prepare a technical report describing the results of the investigation. The test-level report shall evaluate the site including discussion of significance (depth, nature, condition and extent of the resources), final mitigation recommendations, and cost estimates.

CUL-2 If evidence of subsurface paleontological resources is found during construction, excavation and other construction activity in that area shall cease and the construction contractor shall contact the City of Newport Beach Community Development Director. With direction from the Community Development Director, a paleontologist certified by the County of Orange shall evaluate the find. If warranted, the paleontologist shall prepare and complete a standard Paleontological Resources Mitigation Program for the salvage and curation of identified resources.

Geology and Soils

GEO-1 Prior to the approval of design plans for the proposed project, the City of Newport Beach Department of Public Works shall ensure that the proposed project meets the design parameters identified in the *Caltrans Seismic Design Criteria* and *Caltrans Bridge Design Aids*.



Hazards and Hazardous Materials

- HAZ-1 In the event construction activities associated with the proposed project result in the disturbance of traffic striping materials, the City of Newport Beach Public Works Department shall ensure that generated wastes are transported and disposed of at an appropriate, permitted disposal facility as determined by a qualified lead specialist. The traffic striping materials shall be contained/transported and properly disposed of in accordance with the Federal, State, and local laws and regulations.
- HAZ-2 In the event any pole-mounted electrical transformer must be relocated during project construction activities, the construction contractor shall ensure that the relocation is conducted under the local purveyor to identify properly-handling procedures regarding potential PCBs, if applicable.
- HAZ-3 Prior to demolition of the existing bridge structure, a Certified Environmental Professional shall be retained by the City of Newport Beach to confirm the presence or absence of ACMs. Abatement of asbestos shall be completed before any activities that would disturb ACMs or create an airborne asbestos hazard. Asbestos removal shall be performed by a State certified asbestos containment contractor in accordance with the South Coast Air Quality Management District (SCAQMD) Rule 1403.
- HAZ-4 Prior to demolition activities, procedures shall be established, subject to review and approval by the City of Newport Beach Public Works Department, whereby all utility personnel and contractors who may be conducting work within the buildings shall be informed, prior to initiating work, as to the presence of ACMs, their location, type, and conditions.
- HAZ-5 During demolition of the existing bridge structure, the generated waste shall be disposed of at an appropriate, permitted disposal facility as determined by a lead specialist retained by the City of Newport Beach Public Works Department. The waste shall be contained/transported and properly disposed of in accordance with the Federal, State, and local laws and regulations.

Noise

- N-1 Prior to issuance of any Grading Permit or Building Permit for new construction, the City of Newport Beach Public Works Department shall confirm that the Grading Plan, Building Plans, and specifications stipulate that:
- All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other State required noise attenuation devices.
 - The City shall provide a qualified "Noise Disturbance Coordinator." The Disturbance Coordinator shall be responsible for responding to any local complaints about construction noise. When a complaint is received, the Disturbance Coordinator shall notify the City within 24-hours of the complaint and determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall implement reasonable measures to resolve the complaint, as deemed acceptable by the Community Development Department. The contact name and the telephone number for the Disturbance Coordinator shall be clearly posted on-site.



- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.
- Construction activities that produce noise shall not take place outside of the allowable hours specified by the City's *Municipal Code Section 10.28.040* (7:00 a.m. and 6:30 p.m. on weekdays, 8:00 a.m. and 6:00 p.m. on Saturdays; construction is prohibited on Sundays and/or federal holidays).



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6.0 CONSULTANT RECOMMENDATION

Based on the information and environmental analysis contained in the Initial Study/Environmental Checklist, we recommend that the City prepare a mitigated negative declaration for the Park Avenue Bridge Replacement Project. We find that the proposed project could have a significant effect on a number of environmental issues, but that mitigation measures have been identified that reduce such impacts to a less than significant level. We recommend that the second category be selected for the City's determination (See Section 7.0, Lead Agency Determination).

October 2014
Date



Alan Ashimine, Project Manager
RBF Consulting



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7.0 LEAD AGENCY DETERMINATION

On the basis of this initial evaluation, the City of Newport Beach (lead agency for the proposed project) has made the following determination:

The City finds that the proposed use COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

—

The City finds that although the proposal could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described in Section 5.0 have been added. A MITIGATED NEGATIVE DECLARATION will be prepared.

✓
—

The City finds that the proposal MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

—

The City finds that the proposal MAY have a significant effect(s) on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a “potentially significant impact” or “potentially significant unless mitigated.” An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

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